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U.S. Congress. House. Committee on Agriculture.

Forestry

Washington

1921

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FORESTRY

HEARINGS

BEFORE THE

COMMITTEE ON AGRICULTURE

HOUSE OF REPRESENTATIVES

SIXTY-SIXTH CONGRESS

THIRD SESSION

ON

H. R. 15327

(BY MR. SNELL)

JANUARY 26 AND 27, 1921

WASHINGTON
GOVERNMENT PRINTING OFFICE
1921

2002

COMMITTEE ON AGRICULTURE.

HOUSE OF REPRESENTATIVES.

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CONTENTS.

Statement of—	Page
Hon. B. H. Enell	1
Col. W. B. Greeley (three statements)	6, 34, 50
Alfred Gaskill	12
E. T. Allen	14
Gifford Pinchot	25
R. S. Kellogg (two statements)	38, 42
Col. H. S. Graves (two statements)	37, 46
E. H. Baker	39
D. L. Goodwillie	40
G. W. Sisson	42
L. F. Kneipp	43
C. L. Pack	45
E. M. Parsonage	49
J. R. Williams, jr	52
E. A. Sherman	53
E. E. Carter	55
P. W. Ayres	56
W. L. Hall	56

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CONTENTS.

Statement of—	Page
Hon. B. H. Enell	1
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Gifford Pinchot	25
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L. F. Kneipp	43
C. L. Pack	45
E. M. Parsonage	49
J. R. Williams, jr	52
E. A. Sherman	53
E. E. Carter	55
P. W. Ayres	56
W. L. Hall	56

FORESTRY.

COMMITTEE ON AGRICULTURE,
HOUSE OF REPRESENTATIVES,
Wednesday, January 26, 1921.

The committee met at 10 o'clock a. m., Hon. Gilbert N. Haugen (chairman) presiding.

The CHAIRMAN. The committee has been called this morning to give consideration to H. R. 15327, which provides for cooperation between the Federal Government, the States, and owners of timberlands for adequate protection against forest fires, for reforestation of denuded lands, and so forth.

Mr. Snell, we will hear you first this morning.

STATEMENT OF HON. BERTRAND H. SNELL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK.

Mr. SNELL. Mr. Chairman and gentlemen of the committee, we desire to engage your attention this morning in connection with H. R. 15327, commonly referred to as the "Snell forestry bill."

We have a great many people here from every part of the country who are much interested in this proposed legislation. They have come from long distances and desire to be heard at this time on this bill. For that reason I shall not take up much of the time of the committee, as I intend to in the near future, on the floor of the House, make a more extended explanation of the character, scope, and purpose of this legislation.

I shall hand to the stenographer for record in the hearings a partial list of the men here and what they represent:

PROGRAM OF HEARING UPON THE SNELL BILL (H. R. 15327).

Introductory statement.—The great public interest involved and the necessity for setting up as soon as possible a national forestry program will be discussed by Representative Snell, the introducer of the bill. Mr. Snell will also take charge of the hearing and introduce the gentlemen who will discuss the various sections.

Sections 1 and 2.—William B. Greeley, Chief Forester of the United States, will discuss the proposed legislation from the viewpoint of the national service.

Mr. Alfred Gaskill, State forester of New Jersey, will speak from the viewpoint of the State forestry department.

Mr. E. T. Allen, representing the Western Forestry Conservation Association and the National Lumber Manufacturers' Association, will discuss the proposed legislation from the practical viewpoint of the owners of timberland and the manufacturers of lumber.

Section 3.—Will be discussed by R. S. Kellogg, of New York, chairman of the National Forestry Program Committee.

Section 5.—Will be discussed by E. W. McCullough, representing the Association of Wood Using Industries.

Section 6.—Will be discussed by E. E. Carter, assistant forester in the United States Forest Service.

Sections 7 and 8.—Will be discussed by William L. Hall, of Chicago, formerly assistant forester in charge of acquisition of forest lands under the Weeks's law, and Philip W. Ayres, forester of the Society for the Protection of New Hampshire Forests.

Section 9.—Will be discussed by E. A. Sherman, associate forester of the United States Forest Service.

Sections 10 to 12.—Will be discussed by L. F. Kneipp, assistant forester in the United States Forest Service.

The interests of the general public in the proposed legislation will be presented by:

Elbert H. Baker, publisher of the Cleveland (Ohio) Plain Dealer and chairman of the committee on forest resources of the American Newspaper Publishers' Association.

D. L. Goodwillie, of Chicago.

Charles Lathrop Pack, president of the American Forestry Association.

J. Randall Williams, chairman of the forestry committee of the National Wholesale Lumber Dealers' Association.

Col. Henry S. Graves, former Chief Forester of the United States.

George W. Sisson, jr., of Potsdam, N. Y., president, American Paper and Pulp Association.

In order to further facilitate the time of the committee, we have divided up our witnesses and assigned to each one a certain section of the bill, and each man, as far as possible, will confine himself to that particular section to which he is addressing himself.

It also might be well for me at this point to enumerate to the committee the main provisions of the bill that will be amplified later by the gentlemen appearing in the interests of the legislation.

The first two sections are of chief importance at this time. In the main they propose a method of Federal cooperation with the States and individual landowners which, in my judgment, constitute the most effective and constitutional method of getting into operation a comprehensive national forestry policy which outlines Federal, State, and private responsibility in the protection and management of all forest land.

The third directs a survey of forest resources and requirements necessary at an early stage to insure that steps taken under the provisions of this bill are neither inadequate nor superfluous.

The fourth is an appropriation section covering the foregoing three sections, and is of less importance at this time than that you should mark out and approve of some purpose and policy.

The fifth deals with forest research and investigations in wood utilization, also study of forest taxation.

The sixth with reforestation of denuded lands in national forests.

The seventh and eighth with purchasing additional lands for national forests.

The ninth, the acquisition of similar lands by exchange.

The remaining sections cover classifications and inclusion in the national forests of permanent forest lands now in other forms of Government ownership.

This is a short synopsis of the whole bill, which is based on the general assumption and belief that it is now possible to have a mutual cooperative arrangement between Federal, State, and individual landowners governing future forest management.

Speaking for myself, I want to say to the committee that I was engaged in lumbering and timberland business for 20 years and have, as I think, a personal and practical knowledge of this industry as far as Pennsylvania, New York, and New England are concerned,

and a general understanding of existing conditions in this industry throughout the whole country.

I will say for the further benefit of the committee that at the present time I do not own one acre of timberland, nor am I in any way interested financially in any company or corporation owning or operating in timberlands, and that my only interest in this proposed legislation is that of a citizen who is familiar with existing conditions and knows the actual need at the present time of legislation of this character. I can not better state to you the purpose of this legislation than to read the preamble of the bill:

> To provide through cooperation between the Federal Government, the States, and owners of timberlands, for adequate protection against forest fires, for reforestation of denuded lands, for obtaining essential information in regard to timber and timberlands, for extension of the national forests, and for other purposes, all essential to continuous forest production on lands chiefly suitable therefor.

For more than 20 years the people of this country have been realizing that one of our greatest sources of national wealth—the Nation's forests—were fast disappearing, but not until the last few years, when the beginning of the end appeared in sight, have we entirely waked up and all agreed that something definite must be done in the way of improved lumbering operations, better forest management and reforestation if we were going to perpetuate an adequate timber supply for the future needs of the country.

This is such a large proposition. It so vitally affects such varied interests in different parts of the whole country—the landowner, the lumber manufacturers, the paper and pulp interests, the newspaper interests, the building interests, etc., to say nothing of the large number of people who are interested in our forests as public playgrounds and camping places—that for a quarter of a century we have argued this proposition among ourselves and have never been able to get together on any acceptable common ground until the present time. And now for the first time the people most vitally interested in this fast-disappearing natural resources, the people who have given the matter the most thought, the people who will necessarily be called upon to bear a large part of the burden, are united in asking Congress to consider this legislation.

As further evidence of our sincerity in asking for this legislation, I want you to know the people who are back of this bill and fully indorse its main provisions: The United States Forest Service, nearly all State forest departments, National Lumber Manufacturers' Association, American Paper and Pulp Association, National Wholesale Lumber Dealers' Association, Association of Wood-Using Industries, American Forestry Association, and American Newspaper Publishers' Association.

This group comprises landowners, manufacturers, consumers, and public forest authorities from every part of the United States. This is the first time in history of forest legislation that representatives of all these groups have gotten together and unanimously asked Congress for consideration of a forestry measure.

The fact of the diversified interests represented in these groups, the facts that they are practically united at this time, proves three things conclusivly, and that is: First, that this legislation has been thoroughly discussed and considered; second, that it is practical; and third, that it can be accomplished at this time.

By this statement I do not mean to say that all parties are absolutely committed or even satisfied with every provision of this bill, but rather that this bill furnishes the basis or framework of legislation that is not only absolutely necessary but will be of lasting benefit to the people of the whole country.

With this object in view, I introduced H. R. 15327 for the purpose of having the Federal Government define its future policy toward one of its greatest natural resources—the forests and their products.

Mr. Chairman, thus far we as a Nation have been profligate in the use of our natural resources, and to-day we are brought face to face with the rapid depletion of the forests, and in order to preserve them and the industries in this country that are dependent upon them, it is high time to establish some fixed policy that will provide a continuous supply of timber in the United States.

The proponents of this legislation simply desire to have the Government, before it is too late, establish a policy that will insure a continuous timber production in our own domain, and not make us entirely dependent on foreign countries for this raw material. The fire loss alone on timberlands is $25,000,000 per year; and it is certain that a large part of this can be avoided by legislation that properly regulates and protects private and public domain.

This is not sectional legislation or class legislation, but something that is of vital importance to every section and every industry in the United States. It affects the housing situation in the great cities; it affects the farmer in the rural sections; and especially does it affect the taxable assets of the country, which at the present time is no small matter. The future cost and supply of lumber and forest products is of interest to every civilized community in the United States.

Therefore I am convinced that this subject deserves most careful consideration on the part of the committee and is of vital importance to the people of the whole country.

Mr. Chairman, I believe this is the start for some real, constructive legislation, and I am sure your committee will give it the attention that it is entitled to receive.

We will first present, Mr. Chairman, a gentleman who will discuss the first two sections of the bill.

The CHAIRMAN. Mr. Snell, may I ask how much time is desired?

Mr. SNELL. We had about two hours of real material we desired to present to the committee. We have condensed it as carefully as possible and divided the sections among different men, and they will confine themselves to the matter being discussed.

The CHAIRMAN. You would prefer to be heard to-day?

Mr. SNELL. These men come from all over the country, as far west as Minneapolis, and they are desirous of getting away and would like to be heard during the day.

Mr. TINCHER. I do not know much about this subject, but I agree with Mr. Snell that it is an important one. As I understand, there are opponents and proponents here on this bill, and for this morning I would like to get a general idea of the views of both sides. We will only be able to sit during the morning.

The CHAIRMAN. It occurred to me that possibly arrangements could be made to have a session this afternoon in order to accommodate some of these gentlemen.

Mr. SNELL. If it is possible, we would like to be heard to-day, because these men are all business men.

Mr. TINCHER. I would like to ask Mr. Snell one question. You state that now is the opportune time for this legislation. As a Member of the House, holding a position of some consequence with reference to the functioning of the House between now and the 4th of March, I would like your opinion as to whether we will have much chance to enact general legislation of this character during this session of Congress?

Mr. SNELL. I did not mean by that statement that I expected this legislation to be enacted during the present session of Congress. As the gentleman well knows, there will probably not be much general legislation between now and the 4th of March; but it is very important we get this matter started and get the educational work that is necessary to be done in connection with the legislation before the country.

Mr. TINCHER. As I understand it, this committee will have perhaps more new members than any committee of the House after the 4th of March. Of course, the hearings will be available.

Mr. MCLAUGHLIN of Michigan. I would suggest to the gentlemen from the outside who would be inconvenienced by having to remain, that they be given the first opportunity and then we take this matter up again at some other time. The gentleman talks about this being an opportune time; it is anything but that for this committee.

Mr. SNELL. I appreciate that the hearing happened to be wrongly placed so far as this committee is concerned on account of the appropriation bill that is on the floor at the present time.

Mr. MCLAUGHLIN of Michigan. And other matters which we have before the committee demanding our attention; some very important measures.

Mr. TINCHER. One that we have spent almost a year in hearing upon.

The CHAIRMAN. Is there anyone present in opposition to the bill who desires to be heard this morning?

Mr. PINCHOT. Yes, Mr. Chairman; I would like to be heard after the proponents of the bill, and I would suggest, inasmuch as the essence of the bill is in the first two or three sections, that after the gentlemen have spoken on those sections, I would like very much to be heard for 10 minutes, if I may.

The CHAIRMAN. Are there any others?

Mr. WILLIAMS. I believe we come last in the list; but it is very important I should get back to Philadelphia this afternoon by 6 o'clock.

The CHAIRMAN. Are you here to oppose the bill?

Mr. WILLIAMS. No, sir.

The CHAIRMAN. Mr. Snell will control the time as to those who favor the bill. Whatever arrangement you make with Mr. Snell will be followed out.

Mr. SNELL. Mr. Chairman, we will present first Col. William B. Greeley, Chief Forest Service of the United States, who will discuss the proposed legislation from the viewpoint of the National Forest Service contained in the first few sections.

STATEMENT OF COL. W. B. GREELEY, CHIEF, FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE.

The CHAIRMAN. Thank you, Mr. Snell. Col. Greeley, we will be pleased to hear from you.

Col. GREELEY. Mr. Chairman, I just wish to suggest at the outset that this is a very fit subject for national legislation. There is scarcely any commodity as to which our States are more dependent upon each other than upon the products of the forests. Our large industrial States like New York and Pennsylvania are compelled to-day to import from four-fifths to nine-tenths of the forest products which they use from other States. Our most highly developed agricultural section in the Middle West import to-day 97 per cent of the lumber and other forest products which it uses from other States. The beehive of wood-using industries in the vicinity of Chicago and Detroit and Milwaukee would largely have to shut down within three or four weeks if the supplies of timber, which they now from Southern and Western States, were cut off. In other words, this is a national problem. It must be viewed from a national standpoint, and the leadership in its solution must be taken by the National Government.

Four-fifths of our forest lands are in private ownership, and notwithstanding the utmost possible progress in the extension of publicity owned forests, which is one of the things we are advocating, where public ownership is particularly essential, we must recognize that a large proportion of our forests will remain in the ownership of private individuals.

How, then, can the National Government most effectively bring about the growing of timber on private lands which will always form the bulk of our forests; and what will this enterprise cost? These are the two questions which I wish to discuss specifically, addressing my remarks to the first two sections of the bill.

The growing of timber can not be left to private initiative alone. Our future supply of timber can not be left to the turn of profit or loss to the owner of the land under existing economic conditions. It is just that "leave-it-alone" course which has led to the timber shortage now impending. The public interest must be protected through some form of equitable regulation of the use of forest lands, to see to it that they are kept at work growing timber.

The principle embodied in sections 1 and 2 of this bill is analogous to that adopted in our national policies for the education of the farmers in practical agriculture and for the construction of public highways. In each instance plans and standards are worked out by the Federal Government and financial cooperation extended to the States which comply with such plans and standards and carry them out effectively. These great movements for extension work in agriculture and the construction of public highways are now being carried forward by the power of national cooperation. The same principle should be woven into our national forestry policy. Congress can not legislate an economic process like the growing of timber into being. But Congress can, by initiating a far-sighted program of Federal cooperation, directly with the States and through the States with the woodland owners of the country, accomplish the results sought to a large degree.

Section 1 of the bill thus provides that the Secretary of Agriculture shall determine and make known the essential things to be done in each forest region to keep in continuous production of timber such of its lands as are suitable therefor. These essential requirements include the protection forest lands from fire, the disposal of débris left in logging, the planting of forest trees, and regulation of the cutting of timber or extraction of forest products, where any one or all of them are necessary to grow new crops of timber on the lands in question. In accordance with the terms of section 2, preliminary investigations to determine these essential requirements may be made, if necessary, at the cost of the Federal Government alone. Thereupon the Secretary of Agriculture will invite the cooperation of the States concerned, and through the agencies of the State the cooperation of its timber owners in putting into effect the essential requirements which have been determined upon. Section 4 of the bill carries a yearly appropriation of $2,000,000, which may be drawn upon for such cooperation, with a proviso that not less than $1,000,000 shall be expended for the prevention of forest fires.

Under the terms of sections 1 and 2 the Secretary of Agriculture will fix the conditions which he regards as fair and reasonable as a basis for his cooperation with any State. And he is authorized to withhold cooperation from any State which fails to put in effect the requirements for keeping forest lands productive which have been found to be essential.

The Federal Government, as in agricultural extension or the construction of public highways, would thus assume the technical leadership of the reforestation movement throughout the country. It would correlate and establish the concrete measures necessary to grow timber in each group of States having similar forest conditions, and it would then offer substantial financial cooperation to the States accepting and putting into effect the requirements determined upon as necessary. The bill places specific limits upon the extent of the financial cooperation that can be extended to any State by providing that Federal expenditures must not exceed those of the State itself for the same purpose. And it gives a powerful incentive to the State to impose upon its forest owners an equitable portion of the cost of fire prevention and other reforestation measures by recognizing private expenditures for these purposes made in compliance with the laws of the State in the Federal cooperation.

The cooperative work done in any State will vary with its forest conditions and requirements. In the prairie States and States containing limited areas of forest land, cooperation would consist chiefly in the maintenance of forest nurseries and distribution of trees for planting. In other States cooperation should cover technical methods of fire prevention, of disposing of débris left in logging, of cutting various types of timber, so as to secure a new crop of the kind desired, and the like. Assistance should be given to the States in educating their forest owners not only through general publications but specific advice on the management of individual properties.

The largest and most important field for cooperation, however, in all States containing extensive forest areas is in the prevention of forest fires. In this regard, the proposed bill is an expansion of the work done by the Forest Service in cooperation with States on the

watersheds of navigable streams since the enactment of the Weeks law in 1911; and our experience in this work gives us a basis on which to gauge the success of the larger cooperative policy now proposed.

Thirty-nine States in the Union contain approximately 325,000,000 acres of timbered and cut-over lands in State and private ownership, requiring protection from fire. This is the first step to a continuous supply of timber. Out of this amount about 175,000,000 acres are almost wholly unprotected. We have from ten to twenty-five thousand forest fires every year, and we know that they destroy the young forest growth on at least eight or ten million acres every year, aside from large areas burned over annually of which no record can be obtained. These conditions, combined with destructive methods of logging, have already devastated 81,000,000 acres of forest land so completely that it may well be compared with the American Desert; and from eight to ten million acres are being added to it every year.

Effective protection of these 325 million acres of forest land lies at the bottom of any national policy of reforestation. Once this vast area of land is really protected from forest fires, three-fourths of our timber supply problem is solved.

Since 1911 the Forest Service has cooperated in this work with from 10 to 25 States, expending from $40,000 to $125,000 per year of Federal funds. During these nine years, and largely as the result of Federal cooperation, we have seen State and county expenditures for the prevention of forest fires increase from about $250,000 a year the country over to over one million dollars; we have seen private expenditures for forest-fire prevention increase six or eight fold; we have seen the areas of forest land actually protected increase from year to year as the result of practical cooperation carried out in the woods by the Federal Government, the State government, and the private forest owner under the terms of that law.

The method has been worked out; its success has been amply demonstrated; it remains simply to extend it over all the forest lands in the country, of which at the present time over half are practically without protection.

The cost of protecting these forest lands from fire, as reported by 26 States, averages 2½ cents per acre. A forest protection budget for the United States, excluding the Federal holdings, would thus aggregate $8,125,000 a year. As against that requirement the sums regularly available aggregate $1,885,000, of which State and county appropriations represent $1,060,000, private expenditures $700,000, and the Federal appropriation but $125,000.

In other words, about 25 per cent of the necessary task of protecting our forest lands from fire is being done in the United States to-day. We are short 75 per cent of efficient nation-wide forest fire prevention. It is both reasonable and necessary that the National Government take the lead in making good this deficit. In view of the vital national interest in an assured supply of timber for the future, an expenditure of $1,000,000 a year for the prevention of forest fires, or 12 per cent of the total cost, is a ridiculously small item. All of our experience during the last nine years runs to show that the expenditure of this additional amount by the National Government

will, through the cooperation which it stimulates on the part of States and private owners, go a long way toward the efficient protection of our forest lands as a whole.

The cost of forest protection should be shared by the public and the private owner. The owner of forest land has a direct interest in the protection of his property, and he should contribute in proportion to this interest. But the owner can not equitably assume the burden of overcoming the fire hazard of the region which is created by the entire community. In recognition of the regional and community hazard to which forests are subject, and in recognition of its own interest in timber for the future, the public should rightfully assume a share of the cost of protecting them. The protection of forests from fire must by its very nature be organized on broad, systematic lines and hence must be a publicly organized and directed function. We are proposing that the Federal Government, then, representing the national interest, assume 12 per cent of the cost of forest fire prevention, possibly running as high as 25 per cent in individual States, leaving the rest to be borne by the State and its forest owners.

The assumption of this cost by the Federal Government does not mean relieving either the State or the forest owner from expenditures for fire prevention. In every instance the entrance of the Federal Government into the protective work of a State with its insistence upon a systematic plan of forest protection, and with its stimulus to local cooperation, has resulted in an expenditure of larger amounts than before both by the State and by the private owner. In every instance the Federal Government has insisted that the increased protection made possible by its participation be extended to denuded and logged-off lands, and to lands bearing small growth, in which the owner has little at stake and for whose protection he may have no incentive.

It is just such land, however, upon which we depend as a Nation for our future supply of timber, and in providing for its protection through our cooperation we are serving the public interest. The best proof of the results of Federal cooperation in fire prevention is that private forest owners are spending to-day six to eight times the amount that they spent for protection before Federal cooperation began.

Cooperation in forest-fire prevention is the first and at present by far the most important step. But it is not an end in itself. It is a means to the reforestation of timber-growing land, and the actual production of timber is the real objective. That is clearly stated in the bill. The National Government should, therefore, under the terms of this bill define and recommend to each State every additional step essential to reforestation, including methods of cutting or extracting forest products. As rapidly as the fire hazard is brought under reasonable control in each region, the additional measures necessary to actually put growing trees upon the land would, in so far as they are equitable to forest owners, be required as a prerequisite for further Federal cooperation——

Mr. TINCHER (interposing). Do you mean on privately owned lands?

Col. GREELEY. Yes, sir; privately owned lands. These additional requirements would follow just as rapidly as the Secretary of Agriculture, who would have the administration of this bill in hand, determines that they are necessary to keep the forest lands concerned in continuous production, and that they are equitable in view of the conditions surrounding the private lands in those States. You will understand, gentlemen, that the compulsion brought about under this law would be compulsion by the States. It would be exercised directly upon the private owner within the State under the police power of the State; it would be a condition set up which the State must meet before the State could share in the cooperation of the Federal Government. It would be exactly as the Bureau of Public Roads has set up standards of highway construction which must be met by the States before they can participate in Federal appropriations for the construction of public highways. I believe that this is the most effective means of attacking this enormous and important problem.

Now, gentlemen, it has been suggested that there is another method of dealing with this problem. I know that my illustrious predecessor, Mr. Pinchot, is going to present that method. It is also before the United States Senate in the form of a bill, and I am going to refer to it very briefly. Mr. Pinchot will advocate to you that this problem be met by direct Federal control of private lands in forest, or private lands classed as suitable for the production of forests. I have no disagreement with that method in principle, but I wish simply to point out some of the practical difficulties which are going to be encountered in attempting to apply it and which make it impracticable as the best means of getting the results which both Mr. Pinchot and I are working for.

Aside from the fact that the great preponderance of legal opinion is that such Federal regulation of private property and industry would be in violation of the Constitution, aside from the difficulty or impossibility of inducing the American people to accept such an exercise of Federal authority over private property and industry, such a plan, in my judgment, will not work, because it does not fit the practical conditions of the case.

The first requisite for growing timber is the protection of forest lands from fire. That involves the exercise of the police powers of the State or county in a dozen different directions, ranging from spark arrestors on locomotives to incendiarism. A second requisite for growing timber is some form of taxation which does not eat up the value of the crop while it is being grown. This rests with the local taxing powers of the State in which the land is located. Tax adjustments designed to secure the growing of timber should not be shared by any landowner unless he actually does grow timber; in other words, specific requirements in reforestation must be met by the owner of the land in order to gain the benefit of special taxation.

Regulation of the manner in which forest lands are cut can not be separated from the regulation of how forest lands shall be taxed nor from regulation of how forest lands shall be protected from fire. All thre of these go together in actually bringing reforestation about. It is inconceivable that the Federal Government would take over the

police powers of the States whose exercise is essential to the prevention of forest fires. It is inconceivable that the Federal Government will take over the taxing powers and functions of the States. But unless these two things are done it is not possible in my judgment for the Federal Government to regulate how forest lands shall be cut. To split up the one task between different public agencies would lead to duplication of responsibility and confusion. Either the Federal Government or the State must deal with the private timber owner in all the phases of timber production on his land.

The decree of regulation that is equitable in consideration of the local fire hazard, the local tax conditions, and local economic conditions must be worked out by some public agency which controls all of these factors as far as they are within public control. Since it is not possible for the Federal Government to take over the whole job, the Federal Government should leave the States to deal with the private forest owner.

There is no question that our several States have ample police power to regulate the use and protection of forest land. In many instances that power has already been exercised by the States. Twenty-six of our States have established forestry departments and built up organizations for fire protection and other forest work. If the Federal Government should now attempt to regulate forest lands an inevitable conflict between State and Federal requirements would ensue. We would face the prospect of two sets of regulations enforced by two sets of officials upon the same forest owners and not necessarily in agreement. I do not believe that this is the practical way to get results. I do not believe that the effective work done by many States in forestry and the forest organizations which they have built up should be discarded in our Federal policy. Rather would I recognize the right of the State to control the use of its own private lands, and build upon that right with the local sentiment and initiative which lie behind it in developing our national forestry policy.

I am satisfied that a policy of cooperation represents the most effective way by which the Federal Government can bring about the growing of timber on private forest lands. The expenditure of national funds under the terms of sections 1 and 2 is fully justified by the returns assured to our densely populated industrial and agricultural States in the form of a future supply of timber which otherwise they would lack. The people and industries in the States whose Federal taxes will largely carry out this policy can rest assured that the money which they furnish is wisely invested in growing timber.

In no instance will funds be expended unless the State carries out the requirements found necessary by the National Forest Service to make timber grow. These may either be an effective fire-prevention system maintained by the State itself, or regulations imposed by the State upon its forest owners in reference to fire prevention, or disposal of slashings, or the leaving of seed trees, as shall be found necessary in each forest region. Unless the requirements deemed essential by the National Forest Service are met, the funds will not be expended.

After careful study of the whole subject for several years, with discussions embracing practically every region and group of people

interested in timber production, and after the experience of the Forest Service in cooperation with States for nine years, I am satisfied that the first two sections of the bill now before this committee, supported by the appropriation carried in the fourth section, represent the most effective step that the National Government can take to secure the growing of timber on the private forest lands of the country.

Mr. SNELL. Do you have an additional statement that you want to file?

Col. GREELEY. Yes, sir; I would like to submit a further statement for the record.

The CHAIRMAN. Thank you, Colonel.

Mr. SNELL. I will call upon Mr. Alfred Gaskill, State forester of New Jersey, to address the committee. Mr. Gaskill will speak from the viewpoint of the State forester.

The CHAIRMAN. We will be glad to hear from Mr. Gaskill.

STATEMENT OF MR. ALFRED GASKILL, STATE FORESTER OF NEW JERSEY, TRENTON, N. J.

Mr. GASKILL. Mr. Chairman, I shall speak for New Jersey only as one of the 22 States whose forestry officials have authorized me to represent them in support of the principles involved in House bill 15327. Formal action was taken at a conference held at Atlantic City on November 12 and 13, 1920. The States concurring are Alabama, California, Connecticut, Idaho, Illinois, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts Michigan, Montana, New Hampshire, New Jersey, New York, Ohio, Oregon, Texas, Virginia, West Virginia, and Wisconsin. In my representative capacity, therefore, I shall confine myelf to the first two sections, which provide for coopertion with the States in forest protection and forest renewal. It is our conviction that adequate fire control will do more than anything else or than all practical things else to put the country's woodlands upon a productive basis.

You will admit that the States are vitally interested in this program, because it means the acceptance of a considerable measure of Federal control over State activities. It is freely granted, however, that the necessity for assuring the future lumber supply establishes a national obligation. Thus we find a Federal interest and responsibility conjoined with State interests and responsibility. The part of the Federal Government seems to be to furnish the motive power, and that of the States to provide at least as much money and to exercise control. And this is reasonable, because when Congress recognizes a situation and a program everybody gets interested. None of the States, I think, attach undue weight to the money end of this measure; they want the appropriations, of course, but they want them more as assurance of Federal support and a means of stimulating local effort than for what they will buy. Some States are carrying their own load in rather acceptable fashion, but most are backward, and no one knows better than the State foresters how much Government backing means.

Without committing themselves to an indorsement of each provision, the State foresters see in this act as a whole a means by which

the unproductive forest lands in every State can be brought to serve the emergency that we face.

For my own part the question before us concerns itself only incidentally with the statement or fact that the country at large is using wood three or more times as fast as it is being produced. The vital point is that our consuming population is becoming more and more dependent upon remote sections, more and more burdened with high freights, while the land that is able to satisfy most of our needs is worse than neglected. And the case is the more serious that a deficiency can not be met by a quick change in policy. It takes quite a while to grow timber.

The prime intent of this act is to provide lumber for the future, and by starting now to take advantage of the trees 10, 20, 30 years old in the cut-over forests, and by that much help to narrow the gap that threatens between the mature forests of the present and those which must be grown to satisfy coming generations. After the reserve store, the mature stands upon which we still are drawing, are gone, each section must look out for itself. To the extent that the exhaustion of these virgin stands, our timber mines, is anticipated will the paths of our successors be made less rough.

I would not have you infer that we expect to provide wood for the future as liberally or at as low cost as nature has provided it in the past. What I seek to impress upon you is our conviction that in this measure there lies the means to satisfy the Nation's future need for an important low-cost material—and in low cost I include fabrication as well as production.

Under whatever changes the future may have for us, it can be asserted with confidence, I think, that wood is one material which the world must continue to use in considerable quantity. And for the production of this most necessary material every State now has great areas of idle land. In a word, our argument is, let us set our idle, nonagricultural land at work. To the extent that this is done in the populous regions—that means largely in the older States—will the cost to the consumer be lessened by transport savings. May I stress this point and illustrate it by pointing out that little Jersey has 2,000,000 acres of forest land, that Massachusetts has as much, that Pennsylvania has 9,000,000 acres, and New York 12,000,000 acres. If each of these 25,000,000 acres is made to produce no more than 100 board feet of lumber a year, the total is, quantitatively, one-sixteenth of the Nation's present consumption, and it will be close to where it is wanted. If all other similar lands are redeemed, the lumber and pulp problem becomes no problem at all.

In considering a measure of this kind one necessarily questions what may be the alternatives. I can see but two: One, that the Nation continue to build up the national forests, nearly all of them remote from populous centers, in the admirable way that it is doing, and leave the States to look after their own interests in the best way they can; the other, that the Federal Government take hold and by coercive measures insure an adequate lumber supply. One might well hesitate to support the latter at this time. Apart from the constitutional question, every State is jealous of its rights and interests, and disinclined to accept Federal domination. Most of the State

32002—21——2

forestry departments are naturally averse to such a proposition because it means little less than their virtual extinguishment. The cost of the necessary supervision and control has never been calculated, so far as I know, yet it can not fail to be heavy. Is Congress ready to assume that? State interests and private interests are sure to oppose, whether it be on account of restrictions, though they have in them a considerable measure of reasonableness, or whether it be simply antagonism to what is held to be a usurpation of rights. Furthermore, can Federal authority compass those nice adjustments that inhere in local interest and local conditions?

Viewed from whatever angle you like, it is our clear and deliberate opinion that this measure offers a positive, practical, and reasonable means of accomplishing a nation-wide good and satisfying a nation-wide need.

The CHAIRMAN. Thank you, Mr. Gaskell.

Mr. SNELL. I will now introduce Mr. E. T. Allen, of Portland, Oreg., who represents the Western Forestry and Conservation Association and the National Lumber Manufacturing Association. Mr. Allen will discuss this question from the practical viewpoint of the owners of timber land and of the manufacturers of lumber.

The CHAIRMAN. You may proceed, Mr. Allen.

STATEMENT OF MR. E. T. ALLEN, OF PORTLAND, OREG., REPRESENTING THE WESTERN FORESTRY AND CONSERVATION ASSOCIATION AND THE NATIONAL LUMBER MANUFACTURERS' ASSOCIATION.

Mr. ALLEN. Mr. Chairman, as Mr. Snell has stated, I represent two organizations that are somewhat distinct, that is, the Western Forestry and Conservation Association and the National Lumber Manufacturers' Association. The Western Forestry and Conservation Association is an alliance of Pacific coast timber owners in five States who spend between $500,000 and $1,000,000 a year in protecting their timber and cut-over land, patroling over 25,000,000 acres. I am also forester for the National Lumber Manufacturers' Association, which includes most of the lumber production of this country. I suppose that in this hearing I really represent the private interests, or the lumber business.

Speaking thus on behalf of forest industry, the main thing I want to impress upon you is that as far as it has a collective voice, authorized by all its organizations, it goes all the way in these two statements: First, that it believes this country should have such a national-forest policy as this bill contemplates; and, second, that it expects to do its share to make the policy successful. We are for this forestry movement, notwithstanding that we realize fully it may to some extent restrict individual independence for the common good. All we ask is that it be worked out in the most practical way, with all concerned sharing equally without discrimination, and with our industry treated as a cooperating ally and not as an enemy.

We know that enough and the right kind of forest lands must be kept permanently productive, and that the responsibility for this must be distributed between Federal, State, and private ownership. None of these will or can accomplish the result alone. They must

share in the job and help each other. They can not do it jointly without the intelligent support of the whole people, understanding the needs and the exigencies of forest growing as fully and as sympathetically as they do those of agriculture. In other words, a successful forest policy must be based not so much upon the requirements of consumption as upon the requirements of production. It must know what will induce and what will prevent.

Nobody knows the exact ultimate division of permanent forest management and ownership as between public and private agencies. It will eventually adjust itself according as it is sound and permanent business for each. There is no permanent basis except sound business. Obviously, to some extent lumbering is a transitory and migratory industry. Nobody would want it to occupy all the ground it has ever held. On the other hand, it should not be as transitory and migratory as it has been. Nor can it be, because new virgin fields no longer exist. The tendency of the industry will be to improve the management of the lands it expects to occupy permanently and profitably in its primary manufacturing capacity. I do not see how sentiment or legislation could make private effort engage in producing an ample timber supply, regardless of inclination, ability, or profit, any more than they can compel it to mine gold enough to make us all rich. The effectiveness of public effort lies rather in: First, bringing about the maximum of permanent private effort that has a sound basis to sustain interest and success; and, second, in preventing unnecessary destruction of the producing capacity of the residue lands which the public itself must acquire. In large measure both of these objects require a public policy of encouragement rather than punitive steps.

The measure of private interest in new forest crops is everywhere and always a comparison of costs with the value of the product. As long as the country affords available virgin stumpage at less than the cost of duplicating it through investment in lands, interest, taxes, risk, and steps to start the crops, why then it does not pay to grow trees. At the stage of the country's history when virgin stumpage value equals production costs, or forecasts such a situation conclusively, interest in forest growing begins. Either too low stumpage or too high costs defers it and no sentiment or compulsion will alter this.

The significant fact is that this country has now just about reached the stage—some portions of it have and many lumbermen realize it—when stumpage values show it is profitable to grow timber if the cost and risk are not excessive because of fire hazard and confiscatory taxation. This situation is worth more to forestry than any amount of interest in the past when it would not have repaid the effort, and more than any amount of artificial regulation that could now be devised. It wipes off the slate most of the old controversies, when foresters could not see why lumbermen did not listen to them and when lumbermen did not see why they should. It is now time to talk about forest growing. The very shortage which frightens us is the one thing to accomplish its remedy.

It is also reason for dealing with it in a businesslike way; because if we do not now make it feasible to hold forest land and manage it wisely on an extensive scale and at the lowest possible cost, this

omission will be reflected both in shortage and in the high prices necessary to repay high costs.

Now, you must pardon me if I seem to wander from this bill into the field of forest economics. I do so only to contribute the lumberman's viewpoint so that you may judge the effect upon him of this bill or any bill, and of the sincerity of his interest in it. He sums it all up about as follows:

Forest growing is at best a business of slow and small returns, which appeals little except as a means of insuring raw material affording a legitimate profit through manufacture. Hence, he sees it confined as a private enterprise to favorable areas, tributary to a permanent manufacturing business. Thus he sees it dependent also on economic soundness in the entire lumber industry, based on service to the community which is recognized as useful, not destructive, and entitled to a return neither greater nor less than that justly accorded other forms of endeavor. Otherwise, he would be foolish not to abandon it.

Next, as a matter of common sense and solvency, he thinks forest growing must have reasonable protection of the investment against loss by fire, and that, as in all countries where forestry is practiced, taxation of the crop for so long a period must not be uncertain and confiscatory. As a rule he has not these assurances and can not provide them for himself. They require State legislation and public support.

Finally, he senses that public interest in the land he can not afford to keep will inspire some effort to regulate the condition in which he leaves it. He feels that this involves difficult questions that should be solved competently, and not in ignorance or prejudice, and that conditions seem to be lacking for solving them competently. In other words, we have no policy.

Thus, we have a set of what we might call essential conditions which must be provided by the public, but which have not as yet been provided. One reason, perhaps, is that the public lacks assurance that advantage will not be taken of it by the selfish lumberman, with no reciprocal benefits of forest perpetuation. It should not be difficult to provide this, but unfortunately there is a tendency to magnify the difficulty. Ill-informed advisers on both sides have contributed to this, arguing an inherent hostility between private and public interest, resulting on the one hand in demand for punitive regulation of the industry which disregards entirely its governing economic conditions, and, on the other hand, an unreasoning opposition to any regulation because impossible forms have been discussed.

Such a deadlock is vicious in theory and effect. There can be no solution based on a warfare which disregards either interest. No sane community would place impracticable restrictions upon one of its chief sustaining industries and the very one required to convert into usable form the particular resource at issue. No sane industry would willingly destroy its source of raw material or defy public interest and power which can penalize it in countless ways. In all essentials, if not in all undetermined details of method, the interest in forest perpetuation is absolutely mutual. The first of these essentials is constructive cooperation.

As we see it, this bill seeks to break the deadlock which has so long existed, not only between the industry and the public but also between the States and the Federal Government. It proposes to define and carry out the Government's responsibilities, at the same time assisting States and individuals to determine theirs. It invokes our constitutional spirit of cooperation between all these agencies, giving each due consideration, utilizing the peculiar facilities of each, and making the most effective appeal to each. It tends equally to awaken and guide the public interest which inevitably must determine the final result.

We are not afraid of such a process. The American people have always been fair when they have known all the facts. Given means by which these can be arrived at, with all sides heard, and with correlation by competent, impartial Federal agency, and the general principles of a just and effective national policy will certainly be determined. Given also means by which these are localized, because forestry is a local matter very largely, in the same democratic manner and as suited to the needs and conditions of each forest region, and the application is not going to be impracticable, and we are not afraid of it.

It seems to us the bill does exactly this thing. We believe that when all the facts are known and the maximum of voluntary participation is inspired, it will be found that our forest problem is in the main solved. But if any regulatory steps are necessary to assure equitable participation by lumbermen in this movement, then we must expect them to be taken. We think they will be more fairly taken and with less danger of ignorance or prejudice or injustice, than under any alternate system of which we can conceive, either leaving the subject to uncorrelated State action or attempting control by the Government without recognizing that we still remain under the possibly conflicting authority of the State. We believe that regulatory steps must harmonize with our fire and tax conditions, as Mr. Greeley has set forth.

We commend the sanity of this bill in recognizing the elemental importance of the fire problem. To the man from the woods all other forest proposals seem like putting the cart before the horse while we are burning up not only the forests we have but also the millions of acres of natural reproduction which will come much nearer than is realized to meeting the entire need, if protected. Until we get on top of this problem not much else is worth while, and it calls for the best all of us can give it.

As a concluding argument, I want to answer a possible feeling that this bill is not decisive; that it is experimental. It does not seem so to lumbermen or to State officials or to Federal officials out West where the national forest system has existed and has brought us into the same sort of contact, generally, that this bill anticipates. I will tell you the story of this and then I am through.

About 15 years ago a group of Idaho lumbermen decided it was better to cooperate in protecting their land than to do it independently. So they organized a cooperative patrol for which each paid at the same rate according to their acreage. Soon there were four such organizations in Idaho, with the State also a member, paying similarly on its grant land and giving police power to the

field forces. Washington then followed with a similar organization covering all the big fir country in the State of Washington.

Mr. McLAUGHLIN of Michigan. Was that under State laws?

Mr. ALLEN. Yes, sir. These five pioneer organizations then established the Western Forestry and Conservation Association, which I represent, as a sort of grand lodge or clearing house to perfect fire methods, to extend this system over more land, and to get better cooperation between the State, Federal, and private agencies. State and Federal officials were taken in, serving on its committees. Agreements were made by which the three agencies—State, Federal, and private—divided areas and responsibilities where that was best or pooled them where that was best.

This worked so well that other similar organizations were created in Montana, Oregon, and California until soon there were 30 of them, covering virtually all the private forests of the whole Northwest from Montana to northern California, covering one-fourth of the Nation's forest resources, with trained forces, trails, telephones, and lookouts, and publicity work to educate the public in care with fire.

In every case they cooperated closely with the States and Government and jointly they began to improve State fire laws. The State itself took general supervisory authority over the system and directed its police power. The private owners contributed most of the funds. Under this situation in a few years we had a contributing private area of some 15,000,000 acres, putting up from $500,000 to $1,000,000 a year for this work of fire protection, and toward that there was a State contribution of $85,000 and a Federal contribution of $25,000 a year for the joint system which the State supervised, but in which the Government had a voice, and to support which private owners sometimes paid nearly $1,000,000 to the public's little over $100,000. Bear in mind that these public contributions are nearly constant, being made by advance appropriation for a skeleton system. The private owners hold the sack, as it were, for all the balance required, according to the seasonal hazard. In bad years this reaches a tremendous sum. Bear in mind, also, that in all this assessment we pay on our cut-over lands just the same as we do on our timberlands.

Obviously such a system makes the contributor interested in good fire protection and good fire laws. He was more insistent than any one else to get them so he will not have to spend so much to fight fire. So lumbermen themselves went after laws controlling the fire hazard created by their industry; their slash disposal, patrols after locomotives, and what not. They also realize that fire starts anywhere and runs anywhere, on their land on the other fellow's land and on the cut-over land and on timberland, so they had to protect it all, and the progressive, willing contributors did not want to carry the load for selfish owners who rode free. So in States like Oregon and Washington where ownership is most numerous (in Oregon alone there are 16,000 timber owners), laws were passed making patrol compulsory and every timber owner in the State has to bear his share, covering his cut-over land also where there is fire hazard.

As a result we have a system which not only takes care of our merchantable timber better, I believe, than any State or Government does, because State or Government contributions to such work are restricted by preceding appropriation, while we pay the bills as the season develops the need, and in bad years sometimes go to 20 or 30 cents an acre, but we also take care of a large proportion of all denuded and restocking land, whether it is ours or belongs on the public domain. Therefore we are getting reforestation which is very gratifying. In the West natural reproduction is swift and sure if given protection, which is therefore nine-tenths of the forestry problem. We would be glad to bear our fair share of protecting all such denuded land, because we want a second crop and want to keep fire out of the country, but without more help in a cooperative preventive system, we do not feel we can, under our system of obligation to fight every fire to a finish, extend this obligation to assessing our own land to any sum necessary to take care of anybody's land at any distance.

I have described this cooperative movement in some detail for a number of reasons. One is to show why we think the cooperative fire fund proposed by this bill is a good thing to encourage such systems elsewhere. Another is to show why its allotment can properly recognize private effort compelled and supervised by State law. Thirdly, I want you to see that in no way are we trying to pass the burden of protecting our own timber to the Government. We will still do this and more. We advocate only that the Government do enough to represent its interest in protecting the reforestation from which the consumer, not the lumberman of to-day, will be the beneficiary. Finally, I have tried to give you proof that where cooperation and intelligent policy assure its just and useful application, the lumberman does not oppose but rather helps invoke the police authority of the State to safeguard forest resources. We have found that the common interest in forest perpetuation carries us a long way when approached in the proper spirit; also that this process establishes relations for the best settlement of those details on which our views may differ. We believe all national forest problems can be solved in this way. We only ask that States and Government do their share as fully as they properly expect us to do our share. We think this bill fits us all.

Mr. VOIGHT. Mr. Allen, are you in favor of any measure that will compel the owner of timber land to reforest?

Mr. ALLEN. That is a question which would have to be answered with some qualifications. I would say yes, if you ask whether I am in favor of some such measure. I believe there must be reciprocal obligations. If the public gives him a square deal, I think so; but I do not think you can compel him to stay in the business at a loss. I do think you can properly compel him, provided the cost is not excessive and he has reciprocal help from the public, not to destroy the productive capacity of his land.

Mr. VOIGT. You would favor measures that would compel the owner of timber land to cut his timber in such way as not to destroy the young timber that is coming on?

Mr. ALLEN. Yes; if the cost of so doing is equitably distributed. It would seem to me that attempts at police power in this matter can be classified in three ways: First, regulations which prevent anybody from maintaining a menace to other people, and carelessness

with fire would be that. I think you can compel that of a man without compensating him. I think you can go furtser and compel other things which are in the public interest provided the public equitably shares the bill. I do not think you can compel a man by law to constructively engage in putting money into the consumer's pocket. Thirdly, I think we may have proposals which are impracticable or unconstitutional. Of course, there are things that can be required of the private timber owner. For example, we ourselves require him to patrol and to burn his slash.

Mr. VOIGT. This bill, if I read it correctly, does not compel the owner of timber land to do anything.

Mr. ALLEN. Not under Federal authority. It assumes that with some Government subsidy and a great deal of Government education and correlation, the States themselves will exercise any necessary police authority.

Mr. VOIGHT. If I read this bill correctly it does not compel the State to take any action which will compel the timber owner to do anything.

Mr. ALLEN. Correct. I do not think it does.

Mr. VOIGT. In other words, if the bill becomes a law it will spend the Government's money in a voluntary effort in which the cooperation of the interested timber owner can not be compelled; am I right on that?

Mr. ALLEN. I should say it would depend partly on the policy of the department that spends the money, and I assume the department is not going to spend the money unless it thinks it is getting the results it wants in behalf of the Federal taxpayers.

Mr. VOIGT. You are an officer of the National Lumber Manufacturers' Association?

Mr. ALLEN. Yes, sir.

Mr. VOIGT. What office do you hold?

Mr. ALLEN. Their advisory forester.

Mr. VOIGT. You spend most of your time here in Washington?

Mr. ALLEN. No, sir.

Mr. VOIGT. You have spent considerable time here in Washington in the last three or four years?

Mr. ALLEN. I have spent considerable time here. I was asked to come here by the Council of National Defense to serve on the lumber committee. I was asked to come here by Commissioner Roper, Commissioner of Internal Revenue, first, to occupy a position in the Treasury Department where they thought they needed some knowledge of timber matters, and when I did not care to do that I was asked to come to act in a measure to help them cooperate with timber owners. I have come here at other times on matters of this sort.

Mr. VOIGT. Is this bill backed up by the lumber manufacturers of the country?

Mr. ALLEN. Yes; to this extent: Lumber manufacturers of the country think this is a big problem that has got to be solved, and they think this bill, or the proposal of the Forest Service which originated it, is the sort of thing they ought to back up. If the Federal Government proposes it, they are willing to back it up and stand by it. I can not speak for all the 30,000 of them, but so far as they have any collective voice they are back of this bill; yes, sir.

Mr. VOIGT. Did the lumber people of the country have a meeting here recently to discuss this bill?

Mr. ALLEN. Here?

Mr. VOIGT. Yes.

Mr. ALLEN. Not that I know of. The history of the connection of the National Lumber Manufacturers' Association with this bill is very simple. Col. Graves, Col. Greeley's predecessor, wanted to talk to them about it, and they were invited to meet him on it and they did so and asked him what he wanted. He said they should appoint a committee and discuss it with him. They did so and the committee has discussed it with him and later with Col. Greeley. It listened to the arguments of the Forest Service and they sounded pretty reasonable to us, so we thought it was our duty and to our advantage to get behind it, not to fight it, and we are behind it quite sincerely.

Mr. MCKINLEY. Mr. Allen, is there not a law in Japan to the effect that if you cut a tree you have to plant two?

Mr. ALLEN. I give it up.

Mr. MCKINLEY. Do you not believe that would be a good law in this country?

Mr. ALLEN. No; not necessarily. For example, in the State where I live they do not plant trees. The Government itself in the national forests does not plant trees.

Mr. MCKINLEY. That is, they let somebody else do it?

Mr. ALLEN. No, sir; there is natural reproduction. The professional forester in the fir region, for example, where I come from, finds he gets reproduction by what he calls clean cutting, then burning the ground over and letting it seed up.

Mr. MCKINLEY. What I mean by my question is, do you not believe that when you, as a lumberman, clear the lumber off of a 640-acre section of land you ought to be required by law to start other trees there?

Mr. ALLEN. No; I do not go that far. I think, in the first place, we do not know positively what land should be kept permanently in forest. Nobody would think that all the land that has been lumbered——

Mr. MCKINLEY. Of course, nobody would think that now.

Mr. ALLEN (continuing). From Plymouth Rock to Oregon should be, and we do not know where it should be. Generally speaking, I think a great deal more land should be kept permanently productive than is kept productive. I think the whole object will be reached more fully than lots of people think it will by adequate fire protection. I think that goes a long way.

Mr. MCKINLEY. Your feeling then——

Mr. ALLEN. That is the first thing to do.

Mr. MCKINLEY. Your feeling then is that the owner of land should denude it of timber and then trust to the Lord and to the Government to get some more trees; is that the idea?

Mr. ALLEN. No; I would not say yes to that; no, indeed.

Mr. TINCHER. In my case, there was a gentleman here from New Jersey who spoke for the Kansas forest this morning, and I do not believe I will ask you any questions, because I have only lived there 30 or 40 years, and I am going to trust New Jersey to properly represent our State on forests. If anybody cuts a tree in Kansas

the feeling out there is that he ought to be shot instead of being required to plant two trees.

Mr. ALLEN. Mr. Chairman, before I sit down, in view of the tenor of some of the questions I have been asked, I would like to make this short explanation. The Western Forestry and Conservation Association, which I represent and which pays me my salary absolutely—I do not get a dollar from anybody else—has for 11 years existed for the purpose and for the only purpose of bringing about such things as the State, the timber owner, and the Federal Government equally want and which is to their mutual interest. If there are any other jobs that lumbermen want done in the way of a tariff or reciprocal demurrage, or anything of that sort, we do not touch it. We have always scrupulously engaged only in such projects and indorsed only such things as those in which we could have a mutual interest; that is, the Federal Government, the private owner, and the State, and on no other function have I ever been in Washington.

Mr. VOIGT. Did I understand you to say you had been in the employ of the Government for the last three or four years?

Mr. ALLEN. No, sir; I was in the employ of the Forest Service up to the year 1909, I think it was, barring a period when I was recommended by Mr. Pinchot to be State forester of California. Within the last 11 years I have been asked here at times in the capacity I have just tried to describe, that of a neutral expert on forestry matters, to act in a sort of Col. House capacity between the two interests. I have come sometimes at the instigation of my own judgment and occasionally at the invitation of governmental departments, including the Treasury Department and the Forest Service.

Mr. MCKINLEY. Did you tell them about the spruce, Mr. Allen?

Mr. ALLEN. I tried to, and they would not listen to me. They thought they would rather have the Army do it. They sent me out West for that purpose, the War Industries Board did, to start the spruce work, and I lasted about one month, because I could not get along with the War Department.

The CHAIRMAN. How long does it take to grow a merchantable tree?

Mr. ALLEN. It depends on the tree and the region and the size.

The CHAIRMAN. I said a merchantable tree.

Mr. ALLEN. Well, merchantable standards vary, but, roughly, I would say you would not expect to get much anywhere under 40 or 50 years, and more probably 60 or 70 years.

The CHAIRMAN. Is it not estimated at 130 years?

Col. GREELEY. One hundred and thirty years would produce large growth timber, but you can produce pulp wood in 25 years and box lumber in 40 years, depending upon the quality of the product.

The CHAIRMAN. Pine for lumber and sawing?

Col. GREELEY. For rough construction lumber, 50 or 60 years, sir.

The CHAIRMAN. I believe I have noticed some estimate of 130 years. What did that have reference to?

Col. GREELEY. The very high-grade material, like the high-grade soft pine or high-grade hardwoods.

The CHAIRMAN. Have you any estimates as to the cost of producing merchantable timber?

Mr. ALLEN. That, sir, would be like estimating the cost of producing potatoes. In some places it is produced at almost no cost except fire protection and taxation, because you get rapid reproduction naturally, and in some places it would probably require planting.

The CHAIRMAN. What would it cost if it takes 60 or 70 years on land worth $100 an acre?

Mr. ALLEN. It would be so much that I do not think anyone has ever been interested in making that calculation. I do not think many believe that growing forest is profitable if the land is worth more than $5 an acre.

The CHAIRMAN. Five dollars an acre would make the cost about $32,000 an acre including taxes and interest, assuming it would double itself every 10 years.

Mr. ALLEN. No; I do not think so. It depends on the country. I would say in our Douglas fir region we might expect to get in 50 or 60 or 70 years a pretty good crop.

The CHAIRMAN. Would it not cost about $32,000 an acre?

Mr. ALLEN. No; I should not think so.

The CHAIRMAN. It is an easy matter to ascertain.

Mr. ALLEN. You mean to add to your original land value at compound interest——

The CHAIRMAN. Yes; at compound interest and with the taxes.

Mr. ALLEN. I can not do that in my head, but I should say that at $5 it would get up to a pretty good sum, and then your profit would depend a good deal on the amount of timber you got off of it.

The CHAIRMAN. The cost at the end of 60 years would be something like $32,000?

Mr. ALLEN. I should not think it would, but possibly some of these foresters have that data better in their minds than I have.

Col. GREELEY. I would like to say that a good many calculations of that sort have been made. Do you wish further reply on the matter of cost?

The CHAIRMAN. Yes; if you have any figures.

Col. GREELEY. I would just like to say that calculations made by the State of Massachusetts in connection with an extensive program for the purchase of State land on a purely business basis has shown that pine timber in that State can be planted and grown to merchantable size at a cost around $25 a thousand as a fair average figure. Naturally-grown timber will cost much less.

The CHAIRMAN. Does that include interest?

Col. GREELEY. Yes, sir.

The CHAIRMAN. And what is the first cost?

Col. GREELEY. The purchase price of the land is limited to $10 an acre.

Mr. ALLEN. We have figured that where it grows naturally as it does in the West, it can be produced for $6 or $7 per thousand by natural reproduction.

Mr. VOIGT. Mr. Allen, have you come from the West specifically to appear in favor of this bill or are you located in Washington?

Mr. ALLEN. No, sir; I live in Portland, Oreg. I came here for two purposes, one to appear in favor of this bill and the other to try to do what I could to get this fire appropriation before Congress—that is, the airplane patrol for our region—straightened out.

Mr. VOIGT. May I ask how long you have been in Washington on this trip?

Mr. ALLEN. I arrived January 6, to appear at the hearing before the House Appropriations Committee upon the forest-fire appropriation.

Mr. VOIGT. It is reported, I believe, by the Federal Trade Commission that you draw an enormous salary from this Manufacturers' Association?

Mr. ALLEN. What association—the National Lumber Manufacturers?

Mr. VOIGT. Or the association that you represent in this expert capacity.

Mr. ALLEN. I did not see anything like that in the Federal Trade Commission report.

Mr. VOIGT. I think that is true.

Mr. ALLEN. I should like to have you read it to me.

Mr. VOIGT. I have not got it with me, but I was told yesterday that that had been so reported.

Mr. ALLEN. I do not think it was so printed; at least, it was not in any copy of the Federal Trade Commission report that I saw.

Mr. TINCHER. In reference to this airplane business, the Government wasted $1,500,000 last year trying to carry the mail in airplanes, and I understand that there is some real function for the Air Service out in the forests of the West.

Mr. ALLEN. We think so, if we could make the War Department see it.

Mr. TINCHER. They had a provision of that sort in the post-office bill, and if you can get busy around the proper quarters maybe you can help to keep that item out of the post-office bill and get it in a bill where it will do some good.

Mr. ALLEN. We have always thought the air patrol a good thing, and we do not exactly see, when the Army has to train these fliers and use these machines in peace time, why they might not as well be protecting natural resources as to be flying over some desert. They are doing a little on it, but they are doing very little.

Mr. TINCHER. It would be better practice for them to be flying around looking out for fires.

Mr. ALLEN. We think so.

Mr. TINCHER. Than to start out for Chicago with a post card?

Mr. ALLEN. The Air Service thinks forest patrol profitable, but the General Staff is not entirely convinced.

Mr. TINCHER. This same bunch that did not let you go any further in the spruce business than you did still want to carry mail by aeroplane. I saw an interview with some party high up that they were going to put that provision back in the bill, and if you have any influence over in the Senate, I do not care what your salary is, you try to keep that out of the Post Office bill.

Mr. ALLEN. I do not think my salary is great enough to hire a man who has that much influence.

The CHAIRMAN. Would not a separate Air Service solve the situation? The Air Service is cooperating fully in the matter, but is it now handicapped by the General Staff as just indicated by Mr. Allen? I am sure, from my knowledge of that service, that the Air Service is anxious to do this work. But it is the same old story of having their hands tied and duplication.

Mr. SNELL. Mr. Chairman——

The CHAIRMAN. Thank you, Mr. Allen. I was going to suggest that we now hear Mr. Pinchot.

Mr. SNELL. I was just going to suggest, Mr. Chairman, that we hear Mr. Pinchot at the present time.

STATEMENT OF MR. GIFFORD PINCHOT, COMMISSIONER OF FORESTRY, HARRISBURG, PA.

The CHAIRMAN. We will be glad to hear you now, Mr. Pinchot.

Mr. PINCHOT. Mr. Chairman, I can not help feeling a certain amount of satisfaction in coming once more before this Committee on Agriculture, as I used to do so often in the old days when I was forester during the Roosevelt Administration and when you gentlemen presided over the birth of the Forest Service and saw it grow to its maturity. It is mighty nice to be before you again and I shall take as little of your time as I possibly can.

The CHAIRMAN. We are always pleased to have you with us, Mr. Pinchot.

Mr. PINCHOT. Thank you very much, Mr. Chairman. I am here as commissioner of forestry of Pennsylvania to protest against the passage of this bill, realizing, of course, there is no chance for it to pass at this session of Congress, but, nevertheless, anxious to put this protest on record at the same time arguments are made in favor of it.

My own lifetime in Pennsylvania has almost spanned the difference between the time when Pennsylvania was the first lumber-producing State of the Union and to-day when we import four-fifths of everything of this kind we use. The Pittsburgh district alone consumes more lumber than is produced by the whole State, and we are absolutely dependent on the surplus of other States for the continuance of our agriculture and our industry. Moreover, it is costing the citizens of our State something in the neighborhood of $100,000,000 a year to bring timber from the outside that we might just as well grow inside of the State, and it will be many years, although the State has a definite policy to that effect, before Pennsylvania can become self-supporting.

Now, we are not alone in this matter. As Col. Greeley has already indicated, it happens that of the 48 States of the Union, 28 are absolutely dependent for some portion of their timber supply. That dependence ranges from 97 per cent, as he has indicated, all the way down, but, as I have said, they are dependent for some portion of their lumber supplies upon other States, or on outside sources of supply, and the sources of supply outside of the United States will never amount to anything. We must depend upon what is produced in this country. Just as an illustration of that, of the 21 members of this committee, 5 are from timber exporting States, while the remaining 16 are from States whose agriculture and other industries can not prosper without help from other Commonwealths in this regard. It was indicated here to-day that the States which have standing timber are more vitally interested in this question than the States which have not.

As representing a State which is unable to supply its own needs, I hold the exact opposite of that. Pennsylvania, Iowa, Kansas, and other deforested and unforested States can only have what the forested States can let them have beyond their own needs. That is to say, the deforested and unforested States will get the surplus. That is upon the same principle that we know the farmer will be the last man to starve. Our forested States, with good timber supplies in them, will be the last States to feel the stringency due to a timber shortage, while the deforested and unforested States will be the first to feel it. Therefore, this whole question is much more vital to the States which are timber-importing States than it is to the timber-exporting States. Most of the timber that comes to Pennsylvania now comes from the South, just as most of the timber that goes to Iowa comes from the South, but within 10 years from now, I think that supply will be practically exhausted, so far as exporting timber is concerned, and that we must then turn to the West for our timber supply. One-half of the standing timber in the United States is in the States of Washington, Oregon, and California. Sixty per cent of our standing timber supply is west of the Great Plains. More than one-half of the timber on the Pacific coast is in private hands.

Now, the concentration of ownership is a very important matter, in my judgment, in connection with this bill. In this connection, I would like to submit some figures taken from the report of the Bureau of Corporations. The concentration of timber ownership has changed materially since the exhaustive report made upon this subject by the Bureau of Corporations in 1910. One-half of the privately owned timber in the United States is held by approximately 250 large owners, the ownership of the remaining timber being very widely distributed. "The tendency toward the acquisition and speculative holding of timber beyond operating requirements has been checked and the present tendency is toward manufacture in connection with large timber holdings. At the same time, the lumber industry, particularly in the western States, is going through a partial reorganization into larger operating and marketing groups. In this there is a tendency for small mills to disappear and small timber holdings to be blocked into larger ones adapted to extensive lumber manufacture. While there are still a large number of individual timber owners and of sawmills operating as separate units, the larger interests are acquiring a more dominant place in lumber manufacture in the West. It is to be expected that these large interests or groups will maintain, as time goes on, a fairly constant supply of timber for their manufacturing plants, acquiring smaller holdings. No information is at hand which would justify a conclusion that monopolistic conditions on any general scale have grown out of this situation. There are many instances to the contrary. On the other hand, the degree of control of the timber remaining in the United States exercised by a comparatively small number of large interests will steadily increase as timber depletion continues, approaching a natural monopoly in character, and this control will extend particularly to the diminishing supply of high-grade material.

How much that monopoly will amount to is well indicated by some of these figures, which are still good. For example, 16 timberland holders, whose properties are mainly in the West, own timberland enough to give almost 160 acres of land to every male of voting age in the nine Western States in which their holdings mainly occur. For example, if we should take together the timberlands of Washington, Oregon, California, Montana, and Idaho and average them up we will find that an average of $5\frac{6}{10}$ owners in each one of those States hold nearly half, or 48.98 per cent, of the land; for example, $5\frac{6}{10}$ owners in Oregon own and control half the timberland in that State.

Mr. TINCHER. How did they get those large tracts?

Mr. PINCHOT. That is a question that it might not be very pleasant to go into. Those holdings were gotten together originally partly under the law and partly by very important violations of the law. I happened to be a member of the Public Land Commission under Col. Roosevelt, and as Forester I traveled over a good deal of that country with a pack on my back, and I know something about it. Those large timberland holdings could not have been gotten together except by fraud. I do not say that all of them were gotten together by fraud, but I do say that the concentration of many of the large timberland holdings in the West were attended by the most gigantic frauds. It is common knowledge that millions of acres of timberlands were improperly filed upon, and that fraud of every sort was perpetrated in the concentration of these large holdings. I remember one case in Oregon where men took land as swamp land by swearing that they had been over the land in a boat, the boat at the same time having been carried on a wagon.

Mr. TINCHER. Is the title to these lands in the same parties who filed on them or in the original parties?

Mr. PINCHOT. Very largely not, I suppose, by this time.

Mr. VOIGT. What are some of the largest holdings of timberlands?

Mr. PINCHOT. The largest single holding is that of the Southern Pacific Railroad, and the next largest, I believe, is that of the Northern Pacific Railroad. Then there are the holdings of the Weyerhauser Timber Syndicate, T. B. Walker, C. A. Smith, and a very considerable number of others. There are some gentlemen here who could give those figures better than I can.

Mr. MCKINLEY. Did the railroads get their holdings through land grants?

Mr. PINCHOT. Yes. The point I want to make is that there is an immense concentration of ownership and control of timberland in the West, and the West is the part of the country that is important in connection with this question. That is the condition now, and in the next 6 or 8 or 10 years, in accordance with the statement of the Forest Service, this concentration of ownership and control is going to increase. It is going to increase decidedly in the future.

Now, gentlemen, I recognize the very great ability of the statement made by Mr. Allen, the gentleman who preceded me, but I want to call attention to this fact, that here are these lumbermen coming before you and asking to be controlled. These are the men who have made their money by the destruction of the timberlands and who have already destroyed in this country and reduced to desert condition an area larger than the forests of Europe, excluding Russia. There are 80,000,000 acres of those lands now contributing nothing

to the people of the United States. They are here now asking to be prevented from doing that which has made them powerful and rich. We all know that the water-power people fought control and spent a great deal of money to prevent it; we know that the oil people did the same thing, and even on a larger scale, and we know that the coal men are now attacking control and spending a great deal of money to prevent it. We know that the packers have spent enormous sums of money to prevent control. Yet these gentlemen come before you and ostensibly ask to be prevented from doing that very thing out of which they have made their money—that is, to be prevented from handling their lands as they choose. If that is true and if that is sound, so far as I know it is the very first case on record where any great special interest has come in and not only asked to have done to them the things which these other interests have spent large sums of money to avoid, but they are actually spending good money to bring it about.

Mr. McLAUGHLIN of Michigan. Is that entirely correct?

Mr. PINCHOT. I think so.

Mr. McLAUGHLIN of Michigan. These gentlemen say that they are now voluntarily and in cooperation with the States doing on a small scale the things that they wish to have carried out, perhaps, on the same scale or upon a larger scale by cooperation with the Federal Government.

Mr. PINCHOT. I think we ought to make a distinction there between fire protection, which is what they are doing, and the control of the method of cutting, because that is what this bill contemplates. What these gentlemen are doing in that respect, and for which they are spending their money, is, perhaps, an admirable thing to do, but what they are doing or proposing to do should be exactly understood. They are spending money to protect merchantable timber on their own land until it can be cut, and where they are going onto second growth and burned-over areas and applying forest protection measures, it is for the protection of the merchantable timber, and not for the purpose of getting a second growth.

Mr. McLAUGHLIN of Michigan. A larger measure of control must be had over cut-over lands and slashes where fires are more apt to start, and it is very essential that the fires should be stopped there so as not to extend to timber lands, but still they are protecting those cut-over lands and they are protecting young timber from which the future supply must come. I understand that the most essential thing in connection with the reforestation proposition is to keep out the fires and give the young natural growth a chance.

Mr. PINCHOT. That is a most essential thing, but it is not the most essential thing. The main thing that is up now, and the thing that will control the timber supply of the United States for a great many years, is the question of whether the 135,000,000 acres of virgin forest which still remains, but which is being cut at the rate of 5,000,000 acres a year will be cut in such a way as to devastate the lands and keep them from producing a further supply. The main thing is to see that the young growth gets a chance. That is entirely separate and apart from the fire question. We are all agreed that the United States should cooperate with the States in keeping out the fires. That is something that is to everybody's interest. But

here is another question, separate from the fire question, and that is shall the private owners of timber land be prevented from devastating their land. That is what this bill is addressed to mainly.

Mr. McLAUGHLIN of Michigan. Will not the second growth come largely from the trees that the lumberman does not wish to cut at all and not from merchantable timber?

Mr. PINCHOT. In places it will come partly from that source, but by no means entirely from that source. If we are to escape the timber famine, forestry must be practiced on the privately owned lands, just as it is being practiced in the national forests.

Mr. McKINLEY. How is that?

Mr. PINCHOT. That would be a large question to answer, but it is by preventing the lumbermen as they fell the large trees from smashing young trees; it is by working the tops away so that the young trees can come up straight again and by leaving seed trees.

Mr. McKINLEY. You think that they should be required by law to do that, do you not?

Mr. PINCHOT. I think they should be required to do that by law, and I think that a national law is the only law that will accomplish it. They should be required by law to stop devastating these lands and to renew the productive capacity of the lands. I want to draw your attention to the fact that three Western States, or Pacific Coast States, are the only ones that are important in this connection, because they have the great bulk of the timber that must be saved if we are to escape, so far as we can escape it, a timber famine. In that connection my friend from New Jersey, Mr. Gaskill, must be mistaken when he includes California among the States that are in favor of this bill, because my information is that at a recent conference of the State Board of Forestry of California with officials of the United States Forest Service at San Francisco it absolutely refused to consider any form of compulsion——

Mr. ALLEN (interposing). I have a telegram saying that the State Board of Forestry of California has formally indorsed this bill.

Mr. GASKILL. I have ample warrant for the statement I made in reference to the indorsement of this bill by California.

Mr. PINCHOT. I do know that the State Board of Forestry took action in December along the line I have indicated, and that is what I was speaking about. If there is more recent information, then it is different. The State of Oregon in a very carefully worked out outline of its forest policy repeatedly takes up the question of persuading lumbermen to do these things, but it makes nowhere in the statement which is dated December 4 any reference whatever to compulsion. The State of Washington goes very much further. In a statement dated March 18, 1920, the State board says:

> The State Board of Forest Commissioners gladly acknowledges the assistance of the Government representatives in work performed and advice given, but we are not in sympathy with any legislation which will give to any officials control over the privately owned forests or lands of this State. We will not be quiet when we see a policy being formulated that will hamper our citizens, complicate our manufacturing system, and create a national guard of foresters which shall have the power to dictate to men who have become practical lumbermen and foresters and who need no theory of government to aid them in working out the problems of to-day and of the future.

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We shall maintain that our State is entitled to all the benefits which come from being fortunate in having within its borders millions of acres of timberland which will reforest if protected as it has done many times in the past.

We look with fear upon the complicated system of legislation suggested by the chief forester of the United States.

Now, there are a considerable number of gentlemen present in support of this bill who are not timberland owners, who are not timber or lumber dealers, and who represent the consumers. There is a perfectly definite line which will be just as controlling as the fact that a great majority of our States have agricultural and industrial populations. Three-fourths of the States are either deforested or unforested States, and that fact will ultimately be determining as to the character of legislation that you will pass in this matter. Another factor that I wish to call attention to is that there is a complete economic condition that will ultimately be determining in the final alignment as between the timberland owners and producers on the one side and the dealers and consumers on the other, so that when this thing comes to be a hard-fought fight, as it will be later on, we will find a complete redistribution and alignment as to who is on one side and who is on the other. Now, the people I have been talking about are timberland owners. They are a little group of men, mainly in the West, who have already, I think, a monopolistic control over the timber supply of the rest of the country, and who will have a very much larger control. These gentlemen recognize the fact that if this bill should pass they will have control, as they always have had, over the legislatures of their own States, or sufficient control to prevent those legislatures from taking any action which will be hostile to their interests.

The nub of the matter is right there. You would turn the control of the lumber supply of the country over to the State legislatures, and when you do that you will find that the great bulk of the States of the Union will be at the mercy of the Legislatures of Washington, Oregon, and California. Those legislatures, of course, will be controlled, or sufficiently controlled, by the great interests of their own States to prevent any action being taken that will be hostile to those interests. The only control that these gentlemen have any fear of is national control. If they can avoid national control, they will avoid all control. Nobody suggests that the State of Illinois should be given control of the packers, and that the inducement for them to control the packers should be a subvention from the people of the United States to help them fight hog cholera. Yet that is a parallel situation to the one which would be created by this bill. The whole thing would be put up to the State legislatures and the inducement to the legislatures of those States would be a small subvention from the Federal Government, which is supposed to be more powerful with them than the great industries in those States.

The amount of money asked for this year for fighting fires all over the United States was $1,000,000, and I am asking the State Legislature of Pennsylvania for $1,000,000 to fight fires for a two-year period. The point I want to leave behind is this, that, as a matter of fact, this is not a bill to establish control over the lumbering industry of the United States in the interest of preventing monopoly, but it is a bill which if passed will, in my judgment, be

the most effective step that could be taken at this time to consolidate the monopoly over the lumber supply of the United States into the hands of a little group of men on the Pacific coast. Of course, we all realize that a bill carrying an appropriation of $71,000,000 was not intended to pass at this time. It is the same old contest under a different name. It is the fight we had with the water-power men, oil men, and the coal men.

Mr. TINCHER. If this bill is subject to the criticism that you have offered, how do you account for our Forestry Department being handled in such a way that they are supporting this measure?

Mr. PINCHOT. That is a rather hard question to ask.

Mr. TINCHER. I thought that your experience as the head of that department and your information on this subject generally would be valuable to the committee.

Mr. PINCHOT. Perhaps, if Judge Tincher will let me dodge the question, I will answer it in this way: While I was the Forester, a certain number of lumbermen came to Washington, and, through their representatives, they sat up with me, they held my hand, and they told me how good and statesmanlike I was. They finally persuaded me to come out in favor of a tariff on lumber as a means of protecting the forests of the United States.

The CHAIRMAN. Thank you, Mr. Pinchot.

The committee will now adjourn until 10 o'clock to-morrow morning.

(There is printed as follows a letter submitted by Mr. Pinchot, which the committee, at a later session, ordered incorporated with Mr. Pinchot's remarks.)

PHILADELPHIA, PA., *January 26, 1921.*

Hon. GILBERT N. HAUGEN,
Chairman Committee on Agriculture, Washington, D. C.

DEAR MR. HAUGEN: Lest my answer to Mr. Tincher's question at the close of my testimony to-day—an answer made, perhaps, with too much levity—should be misunderstood, I should greatly appreciate it if you would kindly cause this letter to be inserted in the hearing at the end of what I had to say.

No one has or can have a firmer or better founded belief in the character and purpose of the men of the Forest Service than I have. I should be deeply concerned and sorry of the serio-comic anecdote of own past discomfiture should be taken to reflect upon them in any way.

Col. Graves, who as chief of the service, first made a real issue (against the vigorous opposition of certain lumbermen) of the policy of public control over forest devastation on commercial timberlands, is my close and life-long friend, We are wholly at one in principle and differ only as to the most effective method of working our principle out.

The Snell bill is a later development, brought forward since Col. Graves retired, and, I believe, while he was away. You will doubtless desire to hear his views upon it. For reasons set forth in the testimony before you, Col. Greeley and I hold radically but sincerely different opinions as to its value and effect. I recognize, of course, that his right to his opinion is to be respected precisely as much as my own right to mine.

Sincerely, yours,

GIFFORD PINCHOT.

(Thereupon, at 12 o'clock noon, the committee adjourned until to-morrow, Thursday, January 27, 1921, at 10 o'clock a. m.)

COMMITTEE ON AGRICULTURE,
HOUSE OF REPRESENTATIVES,
Thursday, January 27, 1921.

The committee met at 10 o'clock a. m., Hon. Gilbert N. Haugen (chairman) presiding.

The CHAIRMAN. We will hear Mr. Kellogg next.

STATEMENT OF MR. R. S. KELLOGG, CHAIRMAN, THE NATIONAL FORESTRY PROGRAM COMMITTEE.

Mr. KELLOGG. Mr. Chairman and gentlemen, I am the chairman of the national forestry program committee. Congressman Snell is unable to be here this morning on account of business out of town, and he has asked me to present the witnesses in his behalf. In view of the very short time that it is possible for you to give us this morning, Mr. Chairman, we ask permission to file with the committee statements by witnesses upon sections 3, 5, 6, 9, 10, 11, and 12 of this bill. We ask that in order to save discussion. A statement was filed here yesterday afternoon by Mr. Elbert H. Baker, representing the American Newspaper Publishers' Association, speaking in behalf of that organization in favor of this bill, because he could not remain in the city to-day. A statement was also filed by Mr. George W. Sisson, representing the American Paper & Pulp Association, because he could not stay. We also have to ask permission to-day to file a statement by Mr. David L. Goodwillie, of Chicago, speaking in the name of the Union League Club, of Chicago, and who could not remain over to-day. If you will grant us permission to file these statements for the record, we will close the hearings as rapidly as we can.

Mr. MCLAUGHLIN of Michigan. I think there will be no objection to the filing of statements, but you gentlemen must understand that this inquiry will take on a broad character and range, and it will be necessary for some representatives of the different interests to appear later on and give the committee an opportunity to discuss the details of the whole proposition.

Mr. KELLOGG. We shall be delighted to appear at any time you ask us.

Mr. MCLAUGHLIN of Michigan. With that understanding I think there will be no objection to having the statements filed.

Mr. TINCHER. I have no objection to the filing of the statements with the understanding that the parties filing them will be willing to appear later on and answer questions.

Mr. MCLAUGHLIN of Michigan. Your part in this does not end with the filing of statements, because the committee may want more information from you later and may ask you to appear.

Mr. KELLOGG. We hope very much that you will do that, Mr. Chairman. We will guarantee that we are at the call of this committee on any one of these subjects upon which briefs have been or will be filed, and we will feel very much disappointed if you do not call upon us.

As chairman of the committee which prepared this bill, I wish to say that we have sought the widest possible discussion of this bill upon its merits. We seek only a workable solution of the problems

which will result in a larger and continued supply of the forest products essential to the life of the Nation.

It is our purpose to give the Agricultural Committee and the public the facts, and nothing but the facts, about the timber situation in the United States, and the measures which we believe should be enacted into law.

The direct incentive of the preparation of this bill was the discussion and presentation of facts begun in public addresses at conferences throughout the United States by the former Chief Forester, Col. Graves, and ably continued by his successor, Col. Greeley.

The first draft of the bill was prepared by the Forest Service at the request of the forest conservation committee of the American Paper and Pulp Association. The final draft was prepared at a conference participated in by representatives of the Western Forestry and Conservation Association, the American Paper and Pulp Association, the National Lumber Manufacturers' Association, the American Forestry Association, the National Wholesale Lumber Dealers' Association, the Association of the Wood Using Industries of the United States, and the American Newspaper Publishers' Association, all of whom—producers, distributors, and users of forest products—found themselves in substantial accordance with the recommendations of the United States Forest Service as to the practical measures which can and should be instituted to bring about continuous forest production of timber throughout the United States on all lands chiefly suitable therefor.

Since its preparation and announcement, the principle of Federal leadership and State and private cooperation carried in this bill, which has achieved such notable results in other fields of Federal and State activity, has been widely indorsed by chambers of commerce, the Pittsburgh Flood Commission, and other organizations of public-spirited citizens, including the forestry departments of 22 States, ranging from New England to the Pacific coast and the Gulf of Mexico. I submit for the record a list of a considerable number of those organizations.

(The list referred to is as follows:)

The following organizations have indorsed the bill under consideration, H. R. 15327:

State forestry associations of New York, Massachusetts, New Hampshire, North Carolina, Louisiana, Maine, Colorado, Maryland, Ohio, Indiana, Tennessee, Kentucky, Texas, Connecticut, California, Michigan, Wisconsin, Minnesota.

Industrial organizations: National Paper Box Manufacturers' Association, National Box Manufacturers' Association, American Paper and Pulp Association, American Newspaper Publishers' Association, National Lumber Manufacturers' Association, Eastern Paper Board Manufacturers' Association, National Paper Trade Association, National Wholesale Lumber Dealers' Association, Retail Lumber Dealers' Association of the State of New York, Association of Wood Using Industries, Michigan Manufacturers' Association, Kentucky Manufacturers' Association, Springfield, Mass., Chamber of Commerce, Pittsburgh Flood Commission.

Especial letters of indorsement have been received from F. A. Elliott, State forester, Oregon; W. J. Morrill, State forester of Colorado; G. B. McDonald, State forester Iowa; Col. John H. Wallace, jr., conservation commissioner of Alabama; R. B. Miller, State forester of Illinois.

These are the facts which so far are a matter of record at this hearing, and in the time remaining this morning we wish to present

additional evidence and arguments upon the various sections of the bill. In doing so we wish to have you give some time to Col. Greeley, of the United States Forest Service. I will ask Col. Greeley to occupy the first 10 minutes.

The CHAIRMAN. Thank you, Mr. Kellogg. Col. Greeley, we will hear you.

ADDITIONAL STATEMENT OF COL. W. B. GREELEY, FORESTER, UNITED STATES FOREST SERVICE.

Col. GREELEY. Mr. Chairman, since the connection of the Forest Service with certain interests who are appearing in support of this measure was directly called into question before you yesterday, I feel that it is only fair to the committee that the exact standing of the United States Forest Service with reference to this measure be made absoluely clear. My predecessor, Col. Graves, is here, and I will appreciate it if he will correct me if any statments I make on this matter are not exact.

Mr. TINCHER. In what capacity is he here?

Col. GREELEY. As a forester and as the former chief of the United States Forest Service.

Mr. TINCHER. What is his business now?

Col. GREELEY. He is a consulting forester.

Mr. TINCHER. He is not working for the Government now?

Col. GREELEY. No, sir.

Mr. TINCHER. Whom is he with?

Col. GREELEY. I suggest that you put those questions to Col. Graves himself.

Mr. TINCHER. I thought it was proper to put it in the record, since you have called attention to the fact that he is here.

Col. GREELEY. The experience of the great war brought home to this country very sharply the critical situation which confronts it in regard to the supply of timber. Thereupon, Col. Graves took up the framing of an adequate plan for national action that would meet this situation. The principles underlying this plan were published over a year ago. Subsequently, in connection with a report made to the United States Senate on the 1st of June last, the Forest Service, under my direction, reiterated the general points which, in our judgment, should be incorporated in a national plan of reforestation. Now, I am sure that it is unnecessary for me to suggest to this committee that in presenting this program to the public we were not acting in the interest or at the behoof of any group of manufacturers or of any other particular group in this country. We were presenting to the public what we believed to be the practical solution of a great problem which affects everyone. It affects the farmer most of all, because the farmer is the largest user of lumber in this country. It directly or indirectly affects almost every class of consumer. We put that plan before the country not knowing who would support it or who would oppose it. As a matter of fact, it has been suported by certain groups of lumbermen, and it has been opposed by other groups of lumbermen, and by some very influential lumbermen. However, that has made no difference, we have advocated what we believed to be the best practical solution of this problem.

Now, in advocating this solution, we have recognized from the outset that some form of control of the method of cutting and otherwise using private timberlands is absolutely essential, and we indicated in the suggestions contained in the various publications upon this subject the necessity of public control of private forest lands as a fundamental to this whole proposition. We put in our program the only form of control which we believed to be within the limits of the Constitution of the United States, and also within the limits of practicability as a working proposition.

The bill which is before you now is the outgrowth of these recommendations made at different times by the Forest Service. The language of the bill is not our exact language. The principles incorporated in the bill could be worded in many different ways. Certain wording, perhaps, would be more advantageous than the precise language now before you. We are responsible, however, for advocating the principles which have been followed in drafting this bill, and on that responsibility, I, for one, am perfectly ready to stand as an action taken in the best interests of the entire public.

Now, let me suggest this to the committee: This bill makes no attempt to deal with the problem of distribution of timber. Whether the virgin timber that is still left in the United States is used primarily for the benefit of the few Southern and Western States which contain it or whether it is to be distributed so as to benefit all of the wood consumers of the country and whether its price is to be controlled are big problems in themselves which this bill makes no attempt to cover. This bill deals rather with the question of producing timber, of growing more timber, of having something to utilize when our virgin forests are exhausted. I wish to direct the attention of the committee to the 326,000,000 acres of land in this country from which the virgin timber has been removed. Some of it contains second growth, some of it contains small material, much of it contains nothing. However, upon this area the country is dependent for the major part of any timber that we are going to get in the future. These 326,000,000 acres of second-growth and cut-over lands are distributed through 40 States. Large quantities of it are in the thickly settled industrial States of the East, like Pennsylvania and New York, in the Lake States, and in the Southern States. It is upon that land that we must depend for our future supply of timber.

The areas of virgin stumpage still left in the South and West are important, certainly, but those areas of virgin timber are going to be consumed in no great length of time. For the future supply of timber we must look to some rational plan of reforestation of these 326,000,000 acres which are scattered all through the country, East, South, North, and West, and which are so located that the timber which can be grown on them will be available to the average consumer without incurring the enormous cost of transportation across the continent. That is the problem to which this bill is directed, not to the distribution of the timber still remaining.

I wish to add this further word upon the point of monopoly which was brought out yesterday: It is perfectly true that under the very liberal grants of public lands and the loose administration of the public-land laws, large holdings of timber have been assembled in several of our western States under conditions which do favor a

natural monopoly of the remaining areas of virgin timber. That is a problem that we may have to deal with in one form or another. There are just two ways whereby, in the long run, such possible monopoly can be checked: The first is by the extension of public forest ownership, and the second is by growing timber so widely and generally that no possibility of a timber monopoly can exist.

This measure before you provides both methods. It aims at the extinction of public ownership, first, by placing in the national forests every acre of land now under the control of the Federal Government which is chiefly valuable for timber production, and, secondly, by the purchase of forest areas in accordance with the policy established by the Weeks Act. This measure also proposes the second check on monopoly, and that is by growing so much timber and having it so widely distributed that the possibility of its control will disappear.

I thank you, gentlemen.

Mr. TINCHER. There are several questions that I want to ask you about this matter, but, of course, it is understood that you will be here available for the committee. I suppose your testimony this morning is directed at the testimony of the distinguished gentleman from Pennsylvania, Mr. Pinchot, the former Chief Forester?

Col. GREELEY. Yes, sir.

Mr. TINCHER. I suppose I asked him the question that brought on all the trouble, but I was perfectly innocent in it. I wanted to know why the ex-Chief Forester and the present Chief Forester were so out of accord. As I understood his answer, he did not impute any bad motives, but he was simply explaining how you were liable to be persuaded, as he had been persuaded.

Col. GREELEY. Certainly.

The CHAIRMAN. How much does the bill carry?

Col. GREELEY. It carries an annual appropriation of $14,000,000.

The CHAIRMAN. In the aggregate?

Col. GREELEY. $14,000,000 annually for five years, making a total of $70,000,000.

Mr. KELLOGG. It carries $71,250,000.

The CHAIRMAN. Is that correct?

Col. GREELEY. Yes, sir.

Mr. VOIGT. Mr. Kellogg, did you say you were the chairman of the committee that prepared this bill?

Mr. KELLOGG. Yes, sir.

Mr. VOIGT. Does this folder give the names of the committee members?

Mr. KELLOGG. Yes, sir; on the front page.

Mr. VOIGT. I think this should go in the record. If there is no objection, I would like to have the names of these gentlemen who constitute the national forestry program committee inserted in the record.

(The matter referred to is as follows:)

THE NATIONAL FORESTRY PROGRAM COMMITTEE.

E. T. Allen, Western Forestry and Conservation Association; Phillip W. Ayres, Society for Protection New Hampshire Forests; Elbert H. Baker, American Newspaper Publishers' Association; Wilson Compton, National Lumber Manufacturers' Association; Hugh P. Baker, American Paper and Pulp Association; John Foley, Association of Wood Using Industries; P. S. Ridsdale, American Forestry Association; J. Randall Williams, National Wholesale Lumber Dealers' Association.

R. S. Kellogg, chairman; Warren B. Bullock, secretary.
Room 1102, 18 East Forty-first Street, New York City. January, 1921.

Mr. VOIGT. Was this bill framed in the city of Washington?

Mr. KELLOGG. No, sir.

Mr. VOIGT. Where was it framed?

Mr. KELLOGG. As I said in my introductory statement, the original draft of it was framed last spring by the Forest Service at the request of the Forest Conservation Committee of the American Pulp and Paper Association. It was discussed with a great many people during the season, and the final draft of it was framed at a conference in New York on the 15th of October, as stated on the back of the circular. That conference was participated in by the organizations listed on the folder. Col. Greeley also sat in with them, at our request, and helped to work it up.

Mr. VOIGT. I did not get your statement as to what position you occupy.

Mr. KELLOGG. I am chairman of this committee.

Mr. VOIGT. I mean outside of this committee?

Mr. KELLOGG. Outside of this committee, I am secretary of the Newsprint Service Bureau, with headquarters at New York City, which has nothing to do with this bill.

The CHAIRMAN. Thank you, Colonel, we will now hear Col. Graves.

STATEMENT OF COL. HENRY S. GRAVES, FORMER CHIEF OF THE UNITED STATES FOREST SERVICE.

Mr. MCLAUGHLIN of Michigan. There was some question asked as to this witness.

Col. GRAVES. Last spring I resigned as Chief of the United States Forest Service, after 10 years' service. For a portion of the time since then I took a rest which I felt that I had earned. I then set up an office in Washington as a consulting forester. Since that time I have done forestry work in an advisory capacity for different persons. I have returned recently from Cuba where I did some forestry work in connection with some of the sugar plantations where they are cutting off the forests and wasting the timber, preparatory to planting cane. I have no connection whatsoever with any concerns or individuals that have the slightest interest in this bill, one way or the other.

I am chiefly interested in this measure, however, because it is in line with the policy for meeting the forest situation in this country which I myself proposed during my service as chief forester. In the winter of 1918 I set forth in various public speeches and in published pamphlets what I believed to be a very urgent situation in this country resulting from the continued destruction of our forests. And I proposed certain principles which seemed to me should underlie an adequate national-forest policy.

One of the new elements in my proposal was the participation of the public in the handling of private forest lands and the establishment of a system which would give such control or regulation by the

public itself over private lands as would prevent the destructive processes which have been going on almost unchecked.

Mr. McLAUGHLIN of Michigan. When you speak of the public, do you mean the Federal Government?

Col. GRAVES. I speak of the public generally, without reference at the moment to the State or the Federal Government. I would like to speak of that difference in a moment. I proposed we should take this matter up primarily from the standpoint of land utilization. Our forests cover over one-fourth of the area of the country, and the manner in which those forests are handled, whether they are to be made productive or turned into wastes, is a matter of very great public concern. I did not introduce into this question of the forest policy the questions of any public control over the lumber industry or the distribution of lumber. I confined the policy purely to the question of maintaining the production of forests. My idea was to go back to the raw resource and find a way to insure the production of timber on the land which is best suited for that purpose, to keep such land productive in order to provide forest products for the needs of our people, to protect our watersheds, and in other ways to meet the very vital public interests in forests.

We find that private forests are not being handled in a way to keep up production. They are being progressively destroyed. This is, in part, due to the failure of private owners to give any consideration to the question of the condition of the land after cutting. It is due in large measure, of course, to the destructive fires, which in spite of all our efforts in the last quarter of a century we have not yet by any means mastered. It is perfectly clear to anyone who understands the practical problems of handling forests, who knows what the situation is in the forests, that private owners will not handle this matter on their own initiative without public assistance and I believe without public regulation and control. And that is the reason why the program which I set forth in 1918, and why the policy proposed here, introduces the element of public regulation. Recognition of the fact that private owners can not or will not handle this problem is back of this measure which proposes to offer liberal cooperation and help to the private owner, but at the same time definitely insists that there shall be a public control and regulation of the forests which will insure continued production on the forests. I think that that point should be emphasized, because I have found that there are some who can not see in this bill any element of public regulation of private forests, and who believe that it would be possible under this bill to have the whole forest policy degenerate merely into a little added fire patrol in the woods.

I think that this question of public regulation should be perfectly clear. It was set forth as a policy of the Forest Service yesterday in a most admirable way by Col. Greeley, and if there is any misunderstanding about that, I feel that this measure should be rewritten so that it is crystal clear. Personally, I have had nothing to do with the drafting of this bill, and I am, candidly not satisfied with the wording of the first two sections; not because the policy which I suggest may not be read into the language, but because there is an opportunity to have it misunderstood and to have the public, which is to pay the bills, fail to see that they are going to be properly protected. When this measure comes up for any serious consideration by this committee, I should like very much to have an opportunity to make some suggestions in regard to its wording.

Mr. McLAUGHLIN of Michigan. We should be very glad to have you come before us. You are going to be in Washington, are you not?

Col. GRAVES. I expect to be here most of the time.

Mr. McLAUGHLIN of Michigan. And it will be convenient for you to come practically at any time?

Col. GRAVES. Yes, sir. May I add that I have been requested to represent at this hearing the National Forest Fire Prevention Committee? This is an organization of disinterested citizens from nearly all the States created to forward forest-fire prevention in every possible way. George D. Pratt, Forest Commissioner of New York, is its chairman; Harris G. Reynolds, secretary of the Massachusetts Forestry Association, its secretary. This committee favors the general principles back of the Snell bill.

The CHAIRMAN. Thank you Col. Graves.

Mr. PACK. Mr. Chairman, I represent the American Forestry Association, and I would like your permission to file a statement, and I would also like to make a statement with reference to the attitude of the public in regard to these matters. I do not represent any of these interests.

The CHAIRMAN. Without objection, it will be so ordered.

Mr. KELLOGG. We have also statements on sections 7 and 8 by Mr. William L. Hall that we wish to put in.

The CHAIRMAN. Have you any other witnesses present to testify?

Mr. KELLOGG. They are here, but they will now have to file their staements.

Mr. PHILIP W. AYRES. Mr. Chairman, I would like to file a statement on behalf of the Society for Protection of New Hampshire Forests.

The CHAIRMAN. Without objection, the statements will be incorporated.

(Here follow the statements submitted:)

STATEMENT OF MR. ELBERT H. BAKER, REPRESENTING AMERICAN NEWSPAPER PUBLISHERS' ASSOCIATION.

I consider it a great privilege to present to your honorable body the views and the needs of the members of the American Newspaper Publishers' Association, which I have the honor to represent, and to present as well what I believe to be the views and the needs of the 2,500 daily newspapers and the 15,000 weekly papers in the United States.

The newspapers consume about 60 per cent of the total ground wood pulp and about 17 per cent of the sulphite produced in the United States and Canada. The remainder of this ground wood and sulphite takes on a thousand forms in the manifold uses to which this plastic material may be put.

It will be evident at a glance that the newspapers published in the United States consume several times the total amount of wood pulp and sulphite produced in this country. This means the annual cutting over of vast areas of spruce and other pulp woods for this single use alone. We have seen within the lifetime of many here present such increasingly rapid diminution of the area of pulp timber in the States east of the Rocky Mountains as to foreshadow the complete destruction of the basic raw material of the publishing industry, and that in fewer years than it is at all cheering to contemplate. The problem of print paper supply has for years had a large place in the thought and the plans of the newspaper publisher, but we as publishers seem to have needed to

be placed face to face with the startling increase in print paper consumption and the unparalleled increase in the other manifold uses of wood pulp caused by the World War to realize fully the acuteness of our situation. The abnormally high prices of print paper and the difficulties experienced by many publishers in getting supply at all during this period will not soon be forgotten.

For our gravest difficulties in the matter of supply, relief is in sight, owing to lessened consumption, but we are keenly alive to the fact that every user of wood in whatever form is being brought inexorably face to face with rapid diminution, if not actual extinction of supply within a reasonable zone of transportation.

Even a superficial study of the situation shows the number of industries in the United States in which wood in some form or other is the basic raw material to be vast indeed. It is, therefore, with the keenest interest and with the most urgent appeal to your committee that the American Newspaper Publishers' Association joins with the many other organizations represented here to-day in asking for the bill now before you your earnest consideration and as promptly as may be its enactment by the Congress into law.

I may add that the American Newspaper Publishers' Association very strongly approves the basic principles of the Snell bill. We greatly prefer that the Department of Agriculture be authorized to proceed under the Snell bill, taking the holdings of timber as they now stand for a starting point, rather than the Capper bill, introduced in the last session of the Congress. We approve the Snell bill, as it takes the present status quo of ownership and management as its starting point. We believe that far speedier action may be had, that justice may be done every interest, private and governmental alike, and that the important results proposed may be more promptly and more efficiently had under the Snell bill. We believe the results that may ultimately be realized are so vitally important that every State and every individual can well afford to pay his share of this great undertaking.

We are not speaking solely for ourselves as business men, although I may add that, by the latest compilation of the Department of Commerce, the printing and publishing industry is the fifth in value of products, fifth in number of wage earners, and second in value added by manufacture. We are speaking rather for every individual in this broad land, because each one of us is, day by day and every day, a user of wood in some of its varied forms.

One of the most forward-looking acts of the Congress was the creation within the Department of Agriculture of the Department of Forestry, and one of the strongest recommendations that can be urged for the bill under consideration is that it is very largely based upon the careful study of Col. Greeley and the very able staff under him, and that the bill carries Col. Greeley's unqualified indorsement.

The need for this legislation has been admirably summarized by Mr. Harding in a speech to newspapermen at Marion, Ohio, August 13, 1920:

"It is obvious that we must have a forest policy which shall make us self-reliant once more. We ought to be looking ahead to produce our timber for our pulp-wood needs and also our timber for our lumber needs. Forest conservation is a necessary accompaniment to printing expansion and a matter of common concern to all the people.

"Planning for the future with added protection of our present forests from fire is a matter of deep concern to publishers in particular but to all of constructive America as well."

Respectfully submitted.

THE FOREST PRODUCTS COMMITTEE OF THE
AMERICAN NEWSPAPER PUBLISHERS' ASSOCIATION,
By ELBERT H. BAKER, *Chairman.*

STATEMENT OF DAVID L. GOODWILLIE, CHICAGO, ILL., AT THE HEARING BEFORE THE AGRICULTURAL COMMITTEE, WASHINGTON, JANUARY 27, ON THE SNELL BILL (H. R. 15327); SUBJECT, "FORESTRY."

I come to you, gentlemen, from quite a different section of country than does Mr. Allen. He comes from a lumber-producing territory; I come from a lumber-consuming territory. I come not as a timber owner but as a plain citizen; and though a consumer of forest products I heartily agree with Mr. Allen as to the Snell bill and its provisions. Though a buyer of lumber and a large consumer, I am proud to know Mr. Allen's constituents and can not share the opinion expressed by another as to their methods or character. As a man of the other group, so called, I feel obliged and am glad to express myself in this way.

I come from a section and a State that consumes more lumber, I think, than any other like area, and from a section that produces little or no lumber, but that has within its confines acres on acres that are not fit for any other purpose than forestry. As an economic measure and as a necessity my section and the people I represent want forestry made immediately practicable.

I represent the National Association of Box Manufacturers, an organization including in its membership 1,300 concerns manufacturing wood boxes and using in the industry fully 15 per cent of lumber manufactured. I also represent the Michigan Manufacturers' Association, whose membership comprises practically all the industrial concerns in that State, making the second largest State organization of its kind in the country. At this time I would like to put into the record a telegram showing my authority to represent this Michigan Manufacturers' Association.

DETROIT, MICH., *January 22, 1921.*

D. L. GOODWILLIE,
651 Otis Building, Chicago, Ill.:

Please represent the Michigan Manufacturers' Association at the hearing on the Snell bill. We are very much in favor of this bill and believe that if it is passed it will materially assist in further development in Michigan.

JOHN L. LOVETT,
Manager Michigan Manufacturers' Association.

This Michigan Manufacturers' Association comprises in its membership largely men who are not timber owners or lumbermen; but this organization is unqualifiedly in favor of the Snell bill, as you observe.

Particularly am I proud to represent through its public affairs committee the Union League Club of Chicago, a club devoted largely to the development of the better things in national as well as civic life, having a membership of 3,200 or more men representative of our largest business and professional interests, and men very prominent in the life of Chicago. As a manufacturer and user of box lumber for over 30 years, my concern is still operating plants in Michigan and Wisconsin. I know, as do you, gentlemen, the immediate need of an increased timber supply; that this need is quite imperative, and that the growing scarcity of lumber and boxwood—second growth and small timber—is not only apparent but threatens within a few short years the life of my industry. Notwithstanding substitutes, and they have been persistently numerous, the demand for our product increases yearly. However, I am not interested in this Snell bill and the subject of forestry for personal or selfish reasons, but I am from a more unselfish and broader viewpoint.

If it were for personal and selfish reasons, I could tell you in detail not only the needs of forestry for my industry, but how much the manufacturers of Michigan, as well as all the Central States, depend indirectly, if not directly, on an increased production of wood, and, therefore, on the making of a practical forestry program. Suffice it to say that never in the history of building has there been a greater demand for homes and houses than there is to-day. This week the housing interests are holding a conference in Washington to study and, if possible, solve the house and home building question. But representing my club, I come before you from a much broader standpoint than that of any personal interest. In our city we are aroused to the necessity of the occasion. We are studying forestry seriously, hoping by a series of conferences and addresses by Col. W. B. Greeley, the chief forester, and others to enlighten and educate our people in the Central West on the subject and show them the importance of cooperation and immediate action. We will have Col. Greeley before our Chicago Association of Commerce, the Union League Club, Chicago University, Northwestern University; and with him we will spread the gospel of forestry by pictures, papers, and addresses through our schools, and, with the cooperation of the press, we expect to tie up the ends so that Illinois and possibly other near-by States as a result will make forestry not only possible but workable within the State. I am told there are 81,000 000 acres of land that is untillable in our country. Surely this land should be at work. A recent State survey of Illinois shows that my State has nearly 6,000,000 acres of land, none of it good tillable land, and a large part of it fit only for and should be used for reforesting.

This idle land, whether in Illinois or elsewhere, is a burden. It is like the unruly or incorrigible boy in your community. He is a liability until you set

him right. Why not put this idle land to work at once and use it for what it is best adapted? This recent survey in Illinois not only goes extensively into this subject of idle land but urges that they be put to use immediately. At present they are a liability; use them in reforesting and we turn a burden, a liability, into an asset. Situated as we are in the Central West and bringing our lumber into that territory for 2,000 miles, more or less, we are especially with the advanced freight rates, paying in transportation a penalty that alone is a fearful tax on the consumer and the community—a tax that could better be used within the State to promote forestry and the insuring of a supply of lumber. My club is anxious to create this sentiment in making forestry practicable in Illinois and the other neighboring States by this campaign of education outlined above. With my club, I am definitely interested in the Snell bill, as are these other organizations I represent. They favor it and indorse it fully. We consider the Snell bill the first and only bill drafted that looks workable or practicable. While we are neither altruists nor idealists, I feel we must be alert to the situation. We must see the immediate necessity of action. There is still time to create great forests in Wisconsin, Michigan, and even in Illinois, and in many other States by the use of these nontillable lands and by the State taking over lands that may revert to it for nonpayment of taxes, as well as the Federal Government by purchase of lands.

Less-favored countries in Europe long ago had this vision of duty as well as opportunity and are doing the job successfully. Should we not at once begin to provide for those who follow us and who should enjoy not only the forests as forests but who will need the products of the forests as commodities? We hear much of the ultimate consumer, and my plea this morning is for immediate action on this or some equally good forestry measure as a duty if not an obligation to the ultimate consumer down the line. I beg of you, gentlemen, not only that our present timber, whether in national or in individual holdings, be amply safeguarded but protected from fire and all public hazard; that we see the situation seriously, unselfishly, and by cooperation with the Federal Government our States may be urged to provide wood and lumber through the use of nontillable lands for forestry purposes. Our obligation is apparent; our duty is immediate. Let us no longer think forestry and theorize on economics, but let us make forestry, through the workings of this Snell bill, practical and immediately so.

In conclusion, I quote from The Americas, a magazine published by the National City Bank of New York, the following:

"This is a tremendously big and important national problem. It includes almost every factor that bears on great economic questions. The rights of the public and of private holders are intertwined at every point, and the only absolutely certain statement to be made about it is that the present policy is destructive to the best interests of the country and must be improved. Some questions in national economy are subject to almost indefinite postponement. The forestry problem is not one of them."

I thank you very much, gentlemen.

STATEMENT OF GEORGE W. SISSON, REPRESENTING THE AMERICAN PAPER AND PULP ASSOCIATION.

The American Paper and Pulp Association, the parent association of the paper industry in the United States, desires to be recorded in favor of the Snell forestry bill, not alone because the paper industry is dependent for its future existence on a continuous supply of raw material from the forests, but because this association believes it best for the Nation as a whole.

While in the last analysis the problem of the paper supply is the problem of the timber supply, it would be noted that the manufacture of paper is but one of the many methods of forest utilization and that the total demand for timber for other purposes exceeds many times that for the making of paper, this industry using only about 8 per cent of the annual cut of timber.

The paper industry touches so closely the daily lives of the people and reaches such a condition of indispensability in our modern life that we must approach the problems of its raw material supply with a strong consideration for the public interest involved and with a determination that our efforts in the interests of the public shall be so wisely directed that no minor consideration or controversial attitude may interfere with a successful result.

In this spirit the American Paper and Pulp Association approves the policy now proposed because it appears to be a fair adjustment of the respective rights of the timberland owner, the manufacturer, the converter, and consumer of forest products, which latter is the general public.

The relation of the paper industry to forestry is being daily realized as more and more vital. With the great sums involved in paper manufacturing plant investments, the paper industry is willing to do more than its share toward providing a future supply of raw material. But the public must do its part—protect its own forests from losses by fire and must not impose upon the timberland owner such conditions of taxation and operation that his only salvation is deforestation. All he asks is a chance to reforest. We believe this bill properly apportions the task between Federal and State Governments and private owner.

Speaking for the manufacturers of pulp and paper, let me give assurance of our entire readiness to assume obligation and render full measure of service in the practical execution of a program that will be continent wide in its scope, all-embracing as to wood-using industries, and dedicated in its last analysis to the permanent service of all the people.

GEO. W. SISSON, JR.,
President American Paper and Pulp Association.

JANUARY 26, 1921.

STATEMENT OF MR. L. F. KNEIPP, ASSISTANT FORESTER UNITED STATES FOREST SERVICE.

Disregarding the national forests, national parks, and other special forms of reservation, the United States at the present time owns or controls approximately the following acreage of land in the continental United States, exclusive of Alaska:

	Acres.
Unreserved and unappropriated	200,320,128.00
For military reservations	491,386.50
For naval purposes	13,087.58
Revested or pending revestment (approximately)	2,700,000.00
For marine hospital services	28,560.70
Agricultural experiment stations	49,166.25
Indian purposes, allotted and unallotted lands	71,398,730.00
Total	275,001,059.03

A great deal of this land bears timber, and its highest use would be for the permanent production of timber. At present it is not being handled with that purpose in view. The intent of sections 10, 11, and 12 of the bill under consideration is to bring under one management all of the timbered lands owned by the Government of the United States.

The country has reached a stage in its national existence where the conservation of its forest resources is a matter of imperative necessity. One evidence of the fact is the purchase by the Nation of 1,844,465 acres of forested land, at a cost of more than $10,000,000. Further and much larger expenditures for the same purpose are now recognized as inevitable.

This situation acutely emphasizes the necessity for proper care of the forest lands which still remain in the possession of the Nation. Every acre saved from alienation or denudation represents a future saving of public funds which otherwise will have to be devoted to the repurchase of lands of which the Government is now possessed or of other lands of equal forest value. Every acre saved is $5 to $50 saved.

Our national-forest policy first took form 30 years ago, and was definitely crystalized into a workable program 23 years ago. Notwithstanding this fact, there is still a large acreage of land in Government control which is far more valuable for forestry than for any other permanent public purpose, but which is not in the national forests nor managed primarily with a view to the permanent preservation of its forest value. It would be a stroke of real economy to give it the status which it inevitably must receive.

The advantages of such an arrangement are obvious. First, the cost of managing the Nation's forests would be reduced by the elimination of overhead and field organizations which now perform rather comparable functions within their respective territories, which frequently adjoin and differ only in status; second, the production of timber and the protection of watershed values would be of primary, if not paramount, importance rather than incidental or negligible as at present; and, third, the relation of the Nation's forest to the economic or industrial problems relating to forest products would be better correlated or coordinated under one management than under several with differing objectives. (Present map.) A map of the United States will support the statement just made.

The close relationship between the large Indian reservations and the national forests is at once apparent. In many conspicuous instances very important bodies of timber or watersheds lie partly within a national forest and partly within an Indian reservation. The superior advantages of a common plan of management are, in such cases, obvious beyond argument. Much of the unappropriated public land of timber value lies as a fringe around the edges of the national forests. The valuable timbered lands which have become revested in the United States lie in or adjacent to national forests.

The first step in the movement proposed would be a preliminary reconnaissance of the Government lands. The areas of present or potential value for timber production having thus been determined a more detailed and analytical study would then be made, forest values being weighed against other economic values. Detailed reports covering all lands found to be chiefly valuable for forest purposes would then be submitted to the National Forest Reclamation Commission for classification under the act.

The appropriation of $250,000 per annum for five years proposed by section 10 of the act is to cover the cost of this work. Uncertainty regarding the acreage, character, and distribution of the lands requiring examination renders an accurate estimate of cost out of the question. In all probability the appropriation proposed would amply cover all costs of examination and appraisal.

Every public or private interest would be adequately safeguarded by the arrangement proposed by the act. The three executive departments which deal extensively with the public lands are the Departments of War, Interior, and Agriculture. The Secretaries of these three departments are members of the commission. The Senate is represented by two members and the House by two members. The powers conferred by the act are thus vested in a commission where the legislative and executive branches of the Government are almost equally represented and where each interested department has a voice.

There has been no systematic canvass of the timber resources of the lands which would be affected by the proposed measure and reliable data are lacking. Statistics showing area, volume, or value of the timberlands, therefore, are estimates, pure and simple. On an estimate basis it is believed that the acreage which will be affected by the bill would be approximately as follows:

	Acres.
Unreserved and unappropriated land, exclusive of Alaska	4,000,000
Military, naval, and other special reservations	100,000
Unallotted lands in Indian reservations	5,287,000
Revested lands	1,500,000

In other words, approximately 11,000,000 acres of land containing between 75,000,000,000 and 100,000,000,000 feet of valuable timber, worth to-day more than $150,000,000, would reuire consideration by the National Forest Reservation Commission should the pending bill be enacted into law.

The extent of the equities held by Indians in unallotted timber lands within Indian reservations is rather indeterminable, because of the wide variation in treaties and the purposes and provisions of acts or proclamations setting lands aside for reservation purposes. Much of the acreage of land within Indian reservations involves Indian equities which would have to be liquidated should the classification by the National Forest Reservation Commission become final and the lands be embraced within national forests. Equities requiring liquidation also exist in connection with lands revested in the United States. It would be within the province of the National Forest Reservation Commission to determine and to recommend to Congress measures for the liquidation of such equities.

In connection with the liquidation of equities consideration should be given to the fact that under National Forest administration the lands would yield large revenues which would materially offset required expenditures of public funds or which in the discretion of Congress could be applied directly to the liquidation of equities, thus materially reducing or perhaps totally eliminating the need for appropriation of public moneys.

In the case of Indian lands full and immediate liquidation of equities is neither necessary nor desirable. An arrangement whereby payment of the amount due could be distributed over a long period of years in amounts adequate to the needs of the Indians involved would, in many cases, be the preferable method of compensation. Such arrangement would permit the application of receipts from the sale of the resources of the land in settlement of the equities without imposing a hardship upon the holders thereof.

STATEMENT OF CHARLES LATHROP PACK, PRESIDENT AMERICAN FORESTRY ASSOCIATION, JANUARY 27, 1921.

I speak for the American Forestry Association, which represents the interest of the people of the United States in forestry. The people are more vitally concerned with the management of the forests, their protection, and in the provisions for perpetuating them than are the timberland owners, timber manufacturers, paper and pulp manufacturers, or the wood industries, or the foresters who are employed in them. I do not have to point out to this committee why this is so, because, as you so well know, it is the people who pay the State and national taxes for securing and maintaining State and national forests, and who just as directly pay the high and still higher costs due to the decrease in the supply of the products of the forests.

When you consider the provisions of the Snell bill, therefore, a large part of your consideration of the measures proposed must be based on how the public feels toward them. If you do not know what this feeling is, let me tell you: Our association is in contact—and close contact—with the public in every part of the United States. The people are now giving more attention to the question of the forests and what they mean to the prosperity of the country than they have ever done in all the previous history of the United States. During the last year a great educational movement in relation to the value of the forests has swept from one end of this country to the other, and the people have responded to this by taking more interest in legislative matters than they have ever done before. Organizations of all character in State after State have gone on record as demanding from their State governments adequate forest policies, and I do not exaggerate when I say that the people of the United States are practically a unit in demanding that Congress take some definite action with the least possible delay in order to provide for proper fire protection of forest lands, for the reforestation of cut-over lands, and for the regrowth of forests everywhere on lands unsuited to agriculture.

Gentlemen, I do not wish to imply in the slightest degree that what I am going to say is a threat. It is not. It is simply a plain statement of fact: If the people of the United States do not get constructive action by Congress on this forestry problem, Congress is certainly going to hear from them. Look for a moment on how the public has been affected during the last few years by this situation. One of the greatest problems of the day is the housing question. Lumber and other forest products enter prominently into the erection of homes. The high cost of these products has undoubtedly retarded building in every section of our country. We are enlightened. We read voluminously, and we have had to pay, due to the increased prices of paper, twice as much for reading matter as we paid a few years ago, due to the depleted supplies of wood pulp.

Figure, if you will, the reason for increased prices of almost everything of what the average person uses, and in those figures you will have to give as one of the reasons for the increased cost the fact that the wood used in making or transporting them has increased very greatly in price.

This is a period of high taxes and unanimous complaint, because taxes are high. Naturally, Congress must reduce the cost of running the Government, and, naturally, the people expect Congress to cut down taxes wherever it is possible to do so, and any plea for appropriations which increases our taxes is met, of course, with the statement that Congress must economize. This is all very well and good business; but it is not good business, nor is it well, to overlook appropriations for constructive measures which will save the people a great deal more than the appropriations or their taxes required, to pay for such appropriations. The cheapest and the best and the quickest way of reducing the prices of lumber, pulpwood, and other products of the forests is to increase the supply, and the only way to increase the supply is by passing such legislation as we are here requesting you to pass. Let me say that I have it on good authority that the incoming administration is going to look very favorably, indeed, on this proposed legislation and to say further that if your committee recommends for passage the bill which is now before you that I believe you will be supported by the Senate and House. Let me say further and finally that if you do this the people of the United States will be with you and will give you credit that is due you for a piece of legislation which, year after year in the future, will save the country many, many millions of dollars more than the amount required to provide for an adequate forest policy.

ADDITIONAL STATEMENT BY COL. HENRY S. GRAVES.

Section 5 provides for forest investigations of two classes, intended to furnish the scientific basis, first, for the growing of timber, and, second, for its full and effective utilization. The appropriation of $1,000,000 should be divided about equally between them.

Forest experiment station.—Investigations of the first class are an essential part of a national-forestry program, because they will substitute knowledge for opinion in the management of our forests. They must, if the present indicates future requirements, give the scientific basis for increasing present growth of 6,000,000,000 cubic feet to the 25,000,000,000 we use. These investigations must furnish the technical knowledge for the reforestation of 81,000,000 acres of waste forest land, for increasing the production on 245,000,000 acres now only partially productive, and for working out methods of cutting which will leave productive 137,000,000 acres of remaining virgin timber. In short, they must furnish the basis for forestry on an area twice that of all Europe, exclusive of prewar Russia, and on an area of waste forest lands alone equal to that of France, Germany, Belgium, Holland, Denmark, Switzerland, Spain, and Portugal.

Success in reforestation timber growing and protection will depend largely upon technical knowledge, obtainable in a reasonable time at a reasonable cost, only through forest investigattions. European experience and our own show conclusively that such work can be conducted most efficiently from forest experiment stations just as similar work for agriculture can from agricultural experiment stations. Such stations, manned by trained observers, try out on a small and comparattively inexpensive scale under close observation varying methods of reforestation, and of cutting timber, eliminate the unsuccessful, and demonstrate those which are effective. Investigations afford the only economical and practical method of preventing large-scale costly mistakes, also serious in delaying production.

European foresters deal with 25 tree species, mainly with seven—a single pine, one spruce, one fir, one larch, one birch, and two oaks; our investigations must cover 495, of which 125 are of especial commercial importance. We must deal with wide variations of climate, soil, and topography, and with an almost endless number of combinations of species requiring corresponding variations in forest management. Forest experiment stations should answer conclusively for these widely varying conditions in all of the important forest regions such questions as: What trees can and should be grown? How should the nursery stock of each be produced and how and when planted? How should different timber stands be cut so that natural reforestation of desirable species will follow promptly and make artificial planting unnecessary? What yields may be expected as a basis for business plans and management policy? How may poorly stocked, cut-over, or partly devastated lands be converted into fully productive, rapidly growing stands of desirable species? What methods and species should be used in replacing stands killed by such diseases as chestnut blight? What forest management is necessary for effective regulation of stream flow for irrigation and to prevent erosion? Finally, a wide series of investigations should make for improved fire protection.

Some progress has already been made, substantial progress for the small force available. In the East the work has largely been general in character, and has now reached the stage where further progress must be made through intensive studies possible only at forest experiment stations. In the West national forest requirements led to the establishment of five small experiment stations, all now practically discontinued through reduced appropriations. These stations have proved invaluable in supplying a sound technical basis for national forest practice. While for the country most progress has been made in developing methods of artificial planting, a large opportunity remains for refinement of methods to give better results and reduce costs, and on many species no work has been done. The development of proper methods of cutting, even where it has gone farthest, is still in a pioneer stage; practically nothing has been done as a basis for fire protection; and, finally, almost all of the work on the fundamental laws of tree association and growth on which our entire system of forest management must eventually rest is ahead. To support the national forestry program adequately the work should be revived at the five western stations and five eastern stations should be established.

A northeastern station should cover the problems of New England, where 5,500,000 acres are now an unproductive waste; 8,000,000 acres grow nothing but fuel wood; and the remainder of its 25,000,000 acres of forested land only a part of what it could and should, as well as of eastern New York. The northeastern pulp industry should be released from dependence upon Canada for one-fourth its pulp wood by solving the problems of growing spruce forests. An additional group of problems centers in the hardwood and pine forests, with New England now importing at least one-third of its lumber and New York probably more.

A second station should deal with the hardwood and conferous forests of the Alleghenies in Pennsylvania and adjacent States, both commercial forests and farm wood lots, which for Pennsylvania can not now supply lumber for Pittsburgh.

The third station should demonstrate hardwood production in the Appalachian Mountains, the steep productive slopes of which must in the future largely supply the bulk of our high-grade, valuable hardwood timber for the entire country.

The fourth station should cover the problems of the southern pine belt, during the past 25 years one of the principal sources of general-purpose timber for our largest markets. The pine area alone, not considering cypress and hardwood, is greater than the forest area of prewar France, Germany, and Austria. Twenty-three and a half million acres of waste forest land must be reforested, and in addition to timber growing important naval stores and combined grazing and timber-production problems must be solved.

The fifth eastern station must enable the Lake States to reforest their 20,000,000 acres of waste white pine and other forest land and make fully productive 26,000,000 acres additional, so that they can supply at least their own lumber and pulp requirements.

The 61,000,000 acres of Rocky Mountain forests of diversified altitudinal, climatic, and timber conditions require the reestablishment of three stations: In the inland empire for the western white pine and larch-fir forests, in Colorado for the lodgepole pine and Engelmann spruce stands, and in Arizona for the western yellow pine forests of the Southwest. Except in the North the region is not even now self-supporting in timber production and faces development certain to increase demand. Both timber production and the regulation of stream flow for irrigation of agricultural lands must be provided.

Two stations are needed for California, Washington, and Oregon, containing more than half of the remaining timber of the United States; a California station for the sugar, western yellow pine, and redwood forests and for chaparral management to prevent erosion and regulate stream flow for the highly developed agricultural land of southern California, and a Pacific Northwest station for the Douglas fir forests and those of hemlock and Sitka spruce extending into southeastern Alaska, which should in the future rival the Scandinavian forests as a source of pulp and paper. Exclusive of Alaska 6,500,000 acres of devastated lands must be reforested and methods of cutting developed for 40,000,000 acres of remaining virgin timber.

The allotments for the proposed stations should vary from $30,000 to $50,000 and average $42,500. A group of problems such as seed tests, effect of light, heat, and moisture on seedling growth, and various microscopic studies, common to all regions, should be centered at one laboratory, which together with a limited number of specialists, necessary supervision, overhead expenses, and economic studies such as the timber taxation and timber insurance investigations covered in the proviso of section 5 of the bill, would require $75.000, the remainder of the $500,000 allotment for investigations of the first class. For an area exceeding 460,000,000 acres of widely diversified forests this total, which is only a little more than one-tenth of a cent per acre per year, is not excessive, neither is it excessive in comparison with expenditures in other countries. Prewar expenditures of Germany, Switzerland, and Java for similar investigations, on the basis of the forest area of the United States, were at the rate of about $1,500,000, $3,000,000, and $3,700,000, respectively.

Forest experiment stations will answer the innumerable questions arising now and which will arise more and more frequently in the future, of how the different phases of timber growing in different regions with different species and combinations of species can best be conducted. They will establish on a firm foundation the scientific basis for timber production in the United States and by actual demonstration of successful methods go a long way in stimulating a production sufficient to meet our requirements for wood. They will help to bring about the best use of a forest area twice that of all Europe outside of Russia in the production of materials, which affect directly or indirectly our

entire population and which are essential to high standards of living. They will help to make possible a forest industry which like agriculture is basic to all other industries. The work can not be started too soon, because for numerous problems many years are required to secure conclusive results.

Timber taxation and timber insurance.—Investigations of timber taxation and timber insurance are covered under a proviso of section 5 of the bill. Large-scale production of timber on privately-owned lands is absolutely dependent upon working out an equitable, satisfactory form of timber taxation law. Present forms of taxation encourage depletion and discourage the growing of timber. An annual tax is assessed on a crop which requires from 25 to 75 or even more years to mature, and when interest on annual taxes is compounded to the time the crop is harvested it raises serious financial questions for the private owner. To this must be added uncertainty as to both future assessments and the rate of taxation with the prospect of increases. While timber taxation is a function of State government, the Federal Government can through investigation, assist materially in the development of more satisfactory methods. The effects of existing State timber tax laws should be studied in cooperation with the States and an effort made to work out laws which will require timber to bear its fair share of the tax burden and at the same time encourage the growing of timber rather than the devastation of forest lands.

It is not now possible in the United States to obtain insurance upon standing timber or growing forests. Losses from fire or disease now fall entirely upon the individual owner and under many conditions the hazard is so great as to be a material factor in discouraging timber growing. Insurance offers the opportunity to pool losses now possible in the case of other forms of property. While the forest insurance must be developed largely by private initiative, investigation by the Federal Government can be made of material help in the promotion of this important aid to timber growing by private owners.

ADDITIONAL STATEMENT BY R. S. KELLOGG.

Section 3 of the Snell bill provides for a survey of the forest resources and a census of the timber requirements of the United States:

"That the Secretary of Agriculture, through the Forest Service and in cooperation with the various States, organizations of timber users, owners of timberlands, and other agencies, is hereby authorized and directed to make a survey of the forest resources of the United States to determine the quantity, location, availability, and suitability for various uses of each class or species of timber; to determine the approximate area, location, condition, and productive capacity of the land chiefly valuable for timber growth and not required for other purposes; to ascertain the yearly requirements as to kinds and quantities of timber of each State and important wood-using industry; and to obtain such related information as in the judgment of the Secretary of Agriculture may be necessary to carry out the provisions of this act."

An inventory is the first requisite in any business undertaking. Sound financing and capable management are impossible without stock taking, and inventories must be periodically revised.

A forest inventory and a census of timber requirements are fundamental to any adequate plan for forest production and utilization. The need is so obvious that no argument should be necessary to support the request for them.

We must find out what we have, where it is, how fast it is growing, how rapidly it is being used, and what we might have if all forest soil were put to work.

On none of these points is our present information accurate in character or quantity. We know in a general way that the area of land in the United States suitable only for timber growth—about 20 per cent of the total—is sufficient in amount and diversified enough in kind and location to produce in the course of time all the timber we need if forestry methods are applied to it—but our information goes little further than this; it is wholly insufficient for the purposes of practical working plans.

We are told that there is no other material on earth so good as hickory for vehicle manufacture, yet we do not know enough about the present supply, the requirements of the industry, nor how to produce a future supply to enable us to tackle the problem with any assurance of success. The hickory users have been urging the seriousness of the situation upon the Government for a dozen years, but all that has been accomplished is an improvement in the grading rules for the finished product, based upon tests of the physical properties

of the material. No progress has been made toward providing a permanent supply.

We are using 125 pounds of paper per capita yearly in the United States, and our pulpwood supply is rapidly dwindling, but no one knows how much we have nor where it is the best national economy to produce a future supply.

The white pine of the North, the yellow pine of the South, and the Douglas fir of the West are the finest timbers for structural and general use provided by nature for any nation on earth. Yet our knowledge of the remaining supply of these woods, their reproductive capacity, the industrial requirements for them, and the land areas which may best be devoted to their future production is out of date or nonexistent—chiefly the latter.

These are the typical examples. They might just as truly be repeated with respect to all the 40 species of commercially important woods in the United States and the hundreds of forest products of daily necessity in the life of the people. We don't know where we stand now. We must know if we are to tackle the problem of continuous forest production on an adequate scale and in an intelligent fashion.

STATEMENT OF MR. ED. E. PARSONAGE, PRESIDENT ASSOCIATION OF WOOD-USING INDUSTRIES.

In behalf of the interests I represent I want to urge the passage of this bill because it will prove the initial piece of legislation establishing a permanent national forestry policy.

I believe that a vast amount of evidence will be given your committee by the lumber and wood-using industries of this country, to make it perfectly plain to our Congress, that even the most comprehensive legislation possible will be much in the nature of an eleventh-hour repentance.

I am to speak specifically of section 5. This proposed bill has to do particularly with a comprehensive investigation to be made by the Secretary of Agriculture in connection with proper methods for reforestation, also methods of cutting and utilizing timber.

This section is, to my mind, a very important part of the bill, inasmuch as the results of the investigation to be made during the next two or three years will form the real basis for our future National and State reforestation policies.

A vast amount of lumber can be saved that now goes into the slab piles of sawmills all over the country. What is needed is adequate work of a comprehensive character, and a practical point of contact between the lumber producer and the lumber user. It is high time that wasteful methods are discarded in the wood-using and wood-producing industries. Many of the wood-using industries who are now using plank from which the actual waste is in excess of 35 per cent can be taught to use dimension stock of correct sizes provided the lumber mill operatives can be properly instructed in proper methods of sawing. In the past it has been easier to cut plank and discard or throw away the balance of the log with the exception of low-grade car stock, ties, etc.

My argument is neither defense for the lumber producer or the wood-using manufacturer, but rather a plea for more economical utilization of our fast failing forests.

I will now refer to a still more important part of section 5, namely, the provision authorizing the Secretary of Agriculture to study the effects of tax methods and protection on forest perpetuation; devise tax laws designed to encourage the conservation and growing of timber, to cooperate with State agencies in the consideration of such plans.

It is not my province at this time to even suggest further legislation such as will insure permanent supply of timber for posterity.

However, it should be patent to everyone that of the original 822,000,000 acres of virgin forest in the United States, there is at present only one-sixth of that area remaining. One-half of our merchantable standing timber lies in the three Pacific Coast States, and over 60 per cent of the total is west of the Mississippi Valley. In addition, the Forestry Bureau figures that only one-fifth of the timber left in this country is hardwood, upon which so large a portion of our wood-using industries depend.

Any reforestation legislation must necessarily provide for ways and means by which it will be commercially possible for individuals, corporations, States, or the National Government, individually or collectively, to hold forest land sufficiently long to grow merchantable timber.

Subsidies are promptly frowned upon in whatever way they may be presented. However, taxes may be reduced, withheld for periods, or canceled entirely. Other encouragement, financial and otherwise, may be necessary to make adequate reforestation a commercial possibility.

Up to the present time if a sawmill were constructed at any given point for the specific purpose of sawing merchantable timber from a tract of, say, 10,000 acres, the entire cost of the mill and all its sawmill buildings and equipment must be charged off in a period of, say, from 5 to 10 years. When the timber is cut off the tract the mill is abandoned. The public necessarily pays the bill in every thousand feet of lumber that is marketed from this mill.

Constructive legislation should be framed as quickly as possible, such as will enable this millowner to cut progressively, with the idea of recutting in another 10 years, or by adding to his tract with the idea of continuous operations.

It may be even reasonable at this time to present the idea that legislation may be necessary in the near future to encourage or force economical cutting of timber, especially if national or State aid be available for insuring permanent reforestation.

I feel, gentlemen, that we are figuratively taking a very small bite of the apple in passing this initial piece of constructive reforestation legislation.

ADDITIONAL STATEMENT ON SECTION 5 FILED BY A. B. GREELEY.

Losses in manufacture make it necessary to cut in the forest four times the material finally utilized. Only a small part of the latter is used with intelligent reference to its properties. The object of forest products' research is to put this enormous waste to economic use, to make one tree do the work of four. and to improve the inefficient rule-of-thumb methods now employed in utilizing timber. The place of forest products research in a national forestry program is to make the timber left and that grown go as far and serve as effectively as possible. Research includes studies of the mechanical, physical, and chemical properties of the various species; manufacturing processes to improve efficiency and utilization; new processes to utilize waste; and educational and cooperative assistance in the application of results. Investigations are conducted mainly at the Forest Products Laboratory.

The total use of wood where strength is a factor is very large—$200,000,000 annually for the building trades alone. Knowledge of the mechanical properties of timber and of defects on these properties is essential to efficient utilization in building construction. Five hundred thousand strength tests on 125 species have been made to supply this knowledge. Such results are already applied on approximately one-tenth of the structural timber used. The data forms the basis for structural timber-grading rules for southern pine and Douglas fir with a 20 per cent increase in allowable working stresses. It has had, and will continue to have, a wide application in many wood-using industries in the selection of suitable substitutes for woods no longer available.

Supplemented by special tests, data on strength properties have a wide application on many wood products, such as containers. Investigations on containers for some 40 commodities have in each case saved from 12 to 30 per cent in lumber and shipping space and produced a cheaper, more serviceable product. The adoption of improved specifications by several large associations has saved at least $1,000,000 annually. A shippers' association using annually 150,000,000 boxes for canned goods alone reports that from past research 90,000,000 of their boxes can be made more efficient with less lumber, a saving, at 1 cent a box, of $900,000.

Economies in packing and shipping are important to all manufacturers, shippers, dealers, and most of all to the public. Much of the $55,000,000 claims bills paid by the railroads in 1918 for goods damaged and lost in shipment is attributable to faulty containers. Additional investigations are therefore urgently needed on the design and construction of a wide range of representative classes of wooden, fiber, and veneer boxes and crates, and on fundamental relationships between container construction and contents.

New fields of work on mechanical properties include tests of large columns on which practically nothing is known, of steam bending, now responsible for excessive losses of high-grade material, effect on strength of various wood-preservative processes, woodworking properties, and the relationship between growing conditions and strength properties. More efficient and standardized lumber and timber grades are urgently needed in the interest of both consumer and producer. In short, investigations on the mechanical properties of wood and wooden products must eventually provide data that will enable wooden

buildings, bridges, spokes, boxes, barrels, and such products to be designed and constructed most efficiently from properly selected wood.

A practically untouched field deals with methods of reducing waste or utilizing the smaller sizes, of which our future forest production must largely consist. The requirements of industries utilizing small sizes must be studied primarily from the standpoint of supplying their raw material from the waste of industries using large sizes. Built-up and laminated construction can be developed by research to utilize an immense amount of material of small size and low grade now either wasted or of little value, and depends upon changed processes and industrial standards and a strong, durable, waterproof glue or other means of fastening. The standardization of dimension stock sizes and their cutting direct from the log rather than first into lumber promises a large reduction of waste. For example, the manufacture of hickory handles sometimes requires 2 tons of lumber for 400 pounds of handles, and furniture manufacture wastes from 40 to 60 per cent of its lumber. These are merely examples of numerous problems whose solution can be made to revolutionize present conceptions of utilizing small sizes and waste.

Improved methods of drying developed on 35 woods, including Douglas fir, southern pine, spruce, gum, and many oaks are designed to reduce the largely unnecessary annual $50,000,000 loss in the seasoning of lumber, every dollar of which is an added production cost and the waste an additional drain on our forest resources. Further improvement of methods can come only through the determination of the limitations and possibilities of existing dry kilns and their improvement, a wider knowledge of essential drying conditions for all species, and research into the fundamental natural laws which govern seasoning.

The decay of railroad ties, mine timbers, poles, posts, piling, bridge material, and that used in exposed conditions is a drain upon the forests equal to forest fires. Forest Service investigations have materially assisted in the present extensive use of preservatives; established the susceptibility of 46 species to several treatments; shown how to improve several processes; established methods of analyzing creosote and of detecting adulterants; established some of the principles affecting time and cost of treatment; and reduced costs at least one-half cent per cubic foot for all material treated, or $625,000 annually. Further reduction of decay requires work to cheapen processes to encourage wider application of preservative treatment, to develop better methods for refractory timbers, to develop a piling preservative and a cheap odorless preservative suitable for such structures as houses which will take paint and can be supplied in quantity. A fire retardant and better forms of construction must be developed to reduce the largely unnecessary fire losses of $200,000,000 or more annually, and much work must be done on paints, varnishes, and coatings.

Chemical utilization offers possibly the greatest opportunity to utilize waste and low-grade material. The rapidly growing pulp industry alone uses over 5,000,000 cords of wood. Because of the growing scarcity of pulp woods, tests which determined the suitability of 23 woods for ground and 48 for soda, sulphate, and sulphite pulp are increasingly valuable. Additional tests are attempting modifications of the processes, as for example, of the sulphate process to utilize resinous conifers, such as the southern pine, for book and high-grade print paper. Studies to reduce a $5,000,000 pulp decay and a greater pulp-wood decay loss are promising. Within the year cotton linters formerly wasted have been shown satisfactory for pulp, and an annual commercial-plant capacity of 100,000 tons is the result. The 2,000,000 cords of wood which disappears in manufacturing chemical pulp can be saved only through research.

If the resin question can be solved, the number of woods suitable for newsprint can be increased by several common, widely distributed pines, with far-reaching economic consequences to the press, the pulp and paper industry, and timber production. The utilization of pulp for fiber products, amazing already in variety, has practically limitless possibilities through research.

Wood-distillation tests have determined the suitability of five new woods and show how to increase commercial yields of wood alcohol and acetic acid 15 per cent without increasing costs. Recent investigations give a further increase of 50 per cent in wood-alcohol production. Wood alcohol is secured only by wood distillation, and is essential in many chemical industries. Research on ethyl alcohol has reduced operating costs 9 cents per gallon at the larger of our two commercial plants, which produce several million gallons a year, and was an important factor in its success. Important in the utiliza-

tion of mill waste, this process offers also one possible substitute for gasoline if by research costs can be reduced and manufacture made possible at small plants. Progress in all chemical utilization will depend largely upon knowledge of fundamental wood chemistry. Such research, now hardly begun, promises sweeping improvements in widely diversified chemical wood industries.

While necessary to determine facts by research it is important that such facts be used. This requires publication, contact with industries, and commercial demonstrations. A staff sufficiently large to provide such service is necessary for the maximum application of results.

The annual value of all of the products made from wood in the United States amounts to several billion dollars. The industries involved in this production, in labor employed and in capital invested, ranks in the aggregate with our leading industries. These industries, as well as the public, all of which is directly or indirectly concerned, are vitally interested in a continuous wood supply. Forest products investigations can assist materially in making the supply continuous by showing how to reduce the present waste of three-fourths of every tree cut and to get the maximum value out of the one-fourth used. Such research can make our remaining supplies go further and reduce the amounts of timber we shall otherwise have to grow to meet requirement. It is hardly less essential to utilize our timber well than to grow it. This is the function of forest-products' research in national forestry. An annual allotment of $500,000 is none too large for the most urgent and pressing work.

STATEMENT OF MR. J. RANDALL WILLIAMS, JR., CHAIRMAN COMMITTEE ON FORESTRY, NATIONAL WHOLESALE LUMBER DEALERS' ASSOCIATION.

I do not own any timber in the United States nor am I interested financially in any manufacturing or lumber company in the United States.

I feel that I am exceptionally fortunate in being able to be here as I am in a position to express to you an unbiased opinion on this subject—my experience having brought me in close touch, on the one hand, with the lumber manufacturer, and on the other with the consumer and general public. Viewing this question with the idea of taking care of the requirements of our children and our children's children so far as their supply of timber is concerned.

Let us divide the public into two classes: First, those owning timber and producing lumber; second, those consuming the product and the general public. While both of these classes are in a more or less dormant condition in regards to a national-forest policy, they show signs of an early awakening, and, like the Quaker, who changes his belief, often becoming very high church, the average person of the latter class on taking up the question is liable to become radical in his ideas, condemning at once the lumber manufacturer for cutting down the trees, which, as a matter of fact, is a marketable product, the demand for which is caused by the self-same public person who is condemning the lumberman.

In making legislation governing the cutting of timber, while the majority rule, they should not overlook the fact that the lumber manufacturer is the one who has had the real practical experience, and his difficulties should be considered. Criticism should be constructive and not destructive. To develop a system of cutting timber, which will get the lumberman's interest, cooperation, and support, are fundamental and not radical Federal laws.

The fundamental reasons for cutting timber are demand for the product, business enterprise, development, maturity of crop, time limit in which to cut in accordance with the purchaser's contract, and excessive taxes on standing timber, all of which have a distinct bearing on the manner in which the timber is cut.

There are two classes of timber and cut-over lands: The large holdings and tracts, where the large and permanent mills are located, and the smaller and scattered tracts developed by the portable mills. The former are better able and are developing reforestation and fire protection, while with the latter this is practically impossible. They both need Federal and State support.

The cut-over lands may be divided into two classes: That suitable for agriculture and that suitable for reforestation. The first is quick to produce and has a market, the second needs State and Federal help, either by their taking over the land or giving the owner assistance.

The majority of the States have little or no timber and are dependent upon the timber-producing States, and the latter owe a responsibility to the former

and should be made to look after and carry at least half the burden, getting an equivalent support from the Federal Government. State control, in cooperation with the landowner and Federal Government, will develop a greater interest in the State, and cooperation not only of the landowner and lumber manufacturer but of the people in that State in which the timber and land is located. It places on them a greater moral responsibility for the care and development of the same.

STATEMENT ON SECTION 9 BY E. A. SHERMAN, ASSOCIATE FORESTER, FOREST SERVICE.

The purpose of section 9 of H. R. 15327 is to increase the value and productiveness of the existing national forests. It proposes to do this by a method very similar to the methods authorized in section 8 of the same measure. The principal difference is that in section 8 the timber-producing lands are to be acquired by purchase; in section 9 they are to be acquired by barter.

Within the existing national forests there was on June 30, 1920. a total of 24,267,723 acres of land which did not belong to the United States Government and a total of 156,032,053 acres which did belong to the United States Government. A little less than 87 per cent was in Government ownership, and a little more than 13 per cent was in adverse possession. This is due to the fact that before the forests were created all the lands within their boundaries were open to acquisition under the various public-land laws, resulting in much of the best land being taken. The relative importance of the privately owned land within the forest is greater than the 13 per cent would indicate, for the reason that much of this area was carefully selected with an eye to strategic control. The situation varies widely on different forests. Some forests are almost entirely solid areas of Government land; others are more than 50 per cent in private ownership. In each of 78 different forests there are over 100,000 acres of privately owned land, at least 90 per cent of which is chiefly valuable for timber production and watershed protection. Such privately owned land increases the cost of administration, multiplies the difficulties of forest management, and is a permanent fire menace to the timber upon adjoining national forest land.

The work and expense of providing for proper brush disposal on timber-sale areas on national forest land may be completely nullified by the misuse of adjoining land, such as neglect in disposing of slash. Usually the interests of the Government and the interests of intermingled private holdings are not identical. The private owner aims at the maximum immediate financial return; the Government's object is permanent, beneficial use. But intermingled land in a given logging unit or unit of forest management must be handled as a unit and with a single purpose or object in view—to secure the best results either in financial returns or public service. This section makes it possible for the Government and the private owner to each consolidate its holdings so that each is free to secure the full benefits contemplated by complete ownership. This in itself is exceedingly desirable and fully warranted from the broad standpoint of public interest.

In the first place this section should not be confused with the iniquitous "lieu land" law. That law gave the owner of private land rights of selection and gave the Government's officers neither power nor discretion to protect the public against inequitable selections. This measure confers no rights upon the private owners, but does give the Secretary of Agriculture power and discretion whereby the public interests will be advanced, the national forests extended, and their value and productiveness increased.

This section has ample precedent in existing laws. Seven different acts passed by Congress include substantially these provisions, applicable generally to seven different national forests. In addition Congress has at different times given specific authority for a considerable number of specific exchanges of the kind contemplated by this section. The only feature in this section for which there is not already existing precedent in our statutes is the certificate feature, which is designed to simplify exchanges by eliminating a proportion of the uncertainties incident to barter.

The beneficial results of this section if enacted into law would extend far beyond the mere advantages of consolidation. It would be in fact an actual and effective permanent curative instrument in dealing with existing alienations. Excepting as to the lands purchased under the Weeks law, only about 1 per cent of our national forests consist of cut-over land. We have consequently a tremendous forest capital to draw upon. This section would enable

the Department of Agriculture to utilize a part of the forest capital in improving the national forest property as a whole, by acquiring, where this can be done at reasonable valuation, the intermingled forest lands which in adverse ownership threaten the security or affect the value of the publicly owned forests. Roughly speaking, it is estimated that about 19,000,000 acres out of the 24,000,000 acres in private ownership in the national forests are chiefly valuable for timber production and watershed protection.

Some owners will wish to exchange land for land; others will wish to exchange land for timber. Eventually, however, in the long run it is believed that 1 acre of land can be secured in exchange for an average of not to exceed 1,000 feet b. m. of standing timber. Based upon a total stand of 500,000,000,000 feet of merchantable timber, it would require a little less than 4 per cent of our present stock of timber to foot the bill for purchasing this 19,000,000 acres of privately owned timberland in the national forests. In addition the present owners would necessarily require compensation for the value of the merchantable timber now standing on their lands. This would be worked out in different ways to meet different conditions. In some places the private owner would be allowed to reserve the right to cut and remove the merchantable timber within a certain fixed period of years; in other cases he would be given an equal value of national forest timber, which he would be required to cut and remove under proper silvicultural restrictions. In short, the entire area of privately owned timberland, distinct from the present stock of merchantable timber on the land, could be acquired at a timber cost no greater in volume than the average volume growth which may reasonably be secured from the resulting consolidated national forests in a single year under adequate fire protection and regulated cutting. To acquire the private timber in addition will not reduce the total value of merchantable timber remaining in Government ownership, since in no case would the Government give a greater value than it would acquire. Such privately owned lands and their existing stocks of timber should certainly be acquired as rapidly as possible. Long-time plans of forest management are impossible unless this is done.

The situation can not be met entirely by purchases under section 8 of this measure. Many owners who would not care to sell their timber holdings for cash would be willing to liquidate by means of a conservative lumbering operation made possible by a direct exchange. Section 9 supplements the appropriations of public money which would be made under section 8 by making the earning and growing capacity of the forests contribute to their consolidation and improvement. In short, it simply empowers the Secretary of Agriculture to apply good business methods in the management of our public timberlands.

The boundary lines of many of the national forests were determined originally largely by land ownership instead of being drawn to embrace natural-forest units. In the process of consolidation or acquisition by exchange under this section it will sometimes be necessary and desirable to acquire lands which are not actually embraced within the technical or legal limit of the national forests. As this section is worded, this can be done and the forest units rounded out to embrace the adjoining rough timberlands, which under reasonable plans of forest management should be added to the present Federal units. The total area which, by the process of exchange, might thus be added to the national forests is roughly estimated at 5,000,000 acres.

I desire particularly to call the committee's attention to the fact that this is a class of work which is already under way and which has justified itself by satisfactory results. Section 9 would merely extend to all the national forests provisions which in greater or less extent have already been extended to seven specific forests. In this connection your attention is called to the fact that during the present session of Congress a total of 44 individual land exchange bills have been introduced in the House and Senate. Of this number 5 have been enacted into law. Thirty-nine measures are now pending, including H. R. 9539, a general measure similar to section 9, which measure has been introduced by the chairman of the Public Lands Committee. Judging by the known favorable attitude of many members of that committee, its formal approval is expected. Its enactment into law would place in the hands of the Secretary of Agriculture a most potent means for increasing the permanent usefulness and value of the national forests. As such it is naturally of great importance to your committee and forms a necessary part of any complete national-forest program.

STATEMENT ON SECTION 6 OF H. R. 15327, BY E. E. CARTER, ASSISTANT FORESTER, FOREST SERVICE.

Section 6 makes provision for a substantial increase in the work of artificial reforestation on the national forests. This means the establishment of a timber crop by the Federal Government on its own lands which have been set aside for the production of timber to meet the needs and necessities of citizens of the United States. The chief object for which the national forests have been created is to grow timber. Where it is necessary to plant trees in order to start a timber crop, the expense of doing so must be incurred if this object is to be accomplished. The planting of denuded national-forest lands also furnishes demonstrations of how unproductive lands in other ownerships may be made productive.

Planting on the national forests is necessary almost solely where repeated forest fires have destroyed all possibility of securing a new stand of timber from naturally distributed seed. Only in the most exceptional places does any forester advocate the planting of lands which can reseed naturally, and then only for the purpose of starting a crop of the best and most useful trees instead of accepting the stand of relatively inferior kinds which, under some circumstances, take possession of the ground. On the national forests there are millions of acres which were burned over at one time or another, chiefly before the forests were put under administration, and which are reseeding naturally. Such lands are not being and would not be planted by the Forest Service, since to do so would be an unnecessary expenditure and consequently a waste of money. There are, however, at least 1,500,000 acres of land which have been burned so hard by repeated fires that no new stand of trees is coming in. On these lands planting is necessary. Every year these lands remain idle there is a loss in production of at least 500,000,000 board feet of timber for which it is known the country will be in dire need.

In addition there is one national forest, the Nebraska, of about 200,000 acres, which was practically all treeless sand hills. This forest is being planted successfully. Local supplies of rough construction lumber, posts, and other wood used on farms can be furnished to the people of a State which has practically no natural forests.

Since the organization of the forest service $1,121,946.10 has been spent in planting or sowing unproductive lands, mostly old burns. The total area actually reforested is about 100,000 acres, or less than 10 per cent of the total area needing it. The work is now going forward at the rate of from 6,000 to 3,000 acres a year, with an annual appropriation of $125,000. The Department of Agriculture has felt so keely the necessity for increasing the appropriation for fire protection that it has refrained from asking for a large increase in the planting appropriation in order that there might be no misunderstanding in the minds of the Members of Congress that it considered fire protection as the first essential. The planting fund was even reduced during the war on the basis of curtailing work of betterments or improvements in the face of a labor shortage. It has not been restored to its prewar sum of $165,000.

Denuded land can be reforested, as is shown by the current operations on the national forests, at a cost of from $5 per acre in the Lake States to $15 per acre for good-sized operations in Idaho or Oregon. The average cost for the 1,500,000 acres would be about $10 per acre. An appropriation of a million dollars a year would mean that the area needing planting would be restored to productivity at the rate of 100,000 acres a year. The more favorable sites, which could be reforested the most cheaply, would be undertaken first, so that the rate of gain for the first few years would be higher.

In many cases it is possible to forecast, even on the basis of present stumpage values, a direct financial return on this investment. With the increases in stumpage value, which are certain to occur with the rapid diminution of the amount of standing timber in the country, the restoration of practically all these idle lands to a condition of productivity will be justified as a business undertaking. More important, however, is the creation of additional sources of supply of needed wood material for the country.

Once a timber crop is established, future crops can be secured by natural seeding. Planting assures not only the returns from the crop planted, but also the permanent production of timber on the land as an additional return.

To reforest the idle lands in national forests at the rate of about 7 per cent annually, as part of a national program of forestry, is a project which should

not be delayed. Its importance has not been emphasized in the past, because no general planting program should be undertaken until there is reasonable assurance against heavy losses from fires. As part of a national program which places better fire protection first, it is timely and an essential part of the whole.

STATEMENT OF PHILIP W. AYRES, FORESTER OF THE SOCIETY FOR PROTECTION OF NEW HAMPSHIRE FORESTS.

High prices for all wood material, due to the growing scarcity of timber throughout the land, is reacting seriously in the White Mountains. Felling operations proceed with a rapidity unknown before, except upon the limited areas already acquired by the Government. Softwood timber in the valleys throughout the mountain is completely gone. This comprised the great bulk of timber that originally clothed this region. It is only timber on the high slope that remains.

The high slopes now are stripped of both softwood and hardwood—everything. In a single day 3,000 men, armed with every invention that Yankee ingenuity can devise, strip the steep slopes, that can not be recovered to forest, of value in centuries. We are using precisely the methods of the Chinese people in stripping their mountains clean of every kind of wood material, encouraging fire and erosion and consequent floods, with this difference: That the Chinese took 150 years to do what we are accomplishing in 25 years.

Every great river in New England rises in the central mountain region of New Hampshire and Maine, except the Penobscot; and these rivers affect every State in New England except Rhode Island. The Federal Government has acquired only 46 per cent of the land that the Federal engineers marked out 10 years ago as necessary to control stream flow from these great watersheds. On the remainder the dance of death proceeds merrily.

Present methods of cutting are quite different from those of 10 years ago, when timber was more plentiful and prices were lower. Mountain hardwood had no value then; now everything is taken. The smallest saplings are cut to get them out of the way of the larger logs, leaving a slash that invites fire. Two large fires, each covering several hundred acres, occurred last fall when the leaves were dry. These fires consumed not only the débris after lumbering but also the soil itself, which in the mountains is of vegetable origin; after fire new growth is postponed for centuries and in some places forever.

Thus, within a single generation we have gone far toward the despoilation of a region which is the mother of great rivers that affect more manufacturing enterprises than any other group of streams of like character in the whole world. The delay of a single day is detrimental, and the delay of one year brings a loss that is irreparable. In a year logging operations, fire, and erosion will have gone far on these steep slopes toward the permanent disability of the streams.

I speak as a forester who has been intimately familiar with the White Mountains for 20 years. In the late war the White Mountains supplied a goodly amount of material for cantonments, ammunition boxes, and aeroplane stock. In any future emergency they will be unable to do so except from the areas that have been acquired by the Government.

STATEMENT OF WILLIAM L. HALL, OF CHICAGO, ILL.

Although not at present a member of the Forest Service, I was in that organization for 20 years and from 1911 to 1918 had charge of the purchase of lands in the Southern Appalachians and the White Mountains. On account of my connection with that work I have been asked to present a statement to the committee on sections 7 and 8 of the Snell bill.

The two major proposals of the pending bill are the maintaining of private timberlands in productive condition and the consolidation, rounding out, and extension of the National Forests. It is to the second of these that I now ask the attention of the committee. It is, in fact, to that part of this proposal that has to do with an appropriation for further purchases of lands for national forests, under the act of March 1, 1911.

Section 7 of the pending bill proposes an appropriation of $10,000.000 a year for five years. Section 8 makes the appropriation applicable to lands more suitable to timber growing than to other purposes, in any part of the United States.

National forests are the one outstanding achievement in forestry thus far made in the United States. It is now 30 years since the law authorizing them was passed. In that time lands have been segregated out of the public domain to the area of 135,000,000 acres and set aside permanently for forest production. They are the wild, remote, mountainous lands of the Western States, for the most part, but notwithstanding their wild, inaccessible, and undeveloped condition they contain 500,000,000,000 feet of timber which is becoming valuable as the supplies elsewhere become exhausted, and as they are opened up by roads, trails, and telephones.

Ten years ago this committee favorably reported and Congress passed an act authorizing the establishment of national forests on the headwaters of important navigable streams and appropriated $11,000,000 for the purchase of lands for this purpose. The appropriation was made on the basis of a program which proposed he purchase of 5,000,000 acres in the southern Appalachian Mountains and 1,000,000 acres in the White Mountains, for it was generally understood that the program was mainly to be carried out in those two regions. Some additional appropriations have been made and there has now been expended about $11,500,000. There has been purchased or contracted for 1,800,000 acres at an average acreage price of $5.25, or if the cost of examinations, timber cruises, land surveys, title work and clerk hire be considered, the average acreage price has been $6.29 per acre. The original program is therefore 30 per cent carried out and the cost has been, in round numbers, $11,500,000.

Have there been any substantial results from these expenditures? It will be good news to members of the committee to know that these lands to-day appear to be worth more than double their cost. If to the original expenditures for purchase there be added all subsequent expenditures for protection and administration and a balance sheet be drawn as of this date, the undertaking will be shown to have been better than an 8 per cent investment for the United States.

The undertaking has been more than a good investment. On lands where fires have run unchecked for 150 years fires have now been very generally stopped. Over considerable areas careful timber cutting has been done with a result that very fine stands of young trees have come up and are growing fast. They promise well for the future.

But perhaps the most wholesome and satisfactory result from these forests has been their influence on the people of the region and on the holders of adjacent timber properties. They have become strong centers of fire protection and of better methods of handling timber lands. Their influence has grown until to-day it is a powerful force in the education of the people of the region in the right handling of their timber lands. In this they have merely duplicated the results from the National Forests of the West. To-day no other regions of the country are so warmly supporting the forestry legislation now before this committee as the regions which hold the national forests.

This experience will, I believe, when carefully considered by the committee, be convincing that whatever forestry program is adopted must be built around the national forests. They must be the framework of the structure. Upon this point there is, I believe, no considerable difference of view among foresters or among those who have studied the problem at all deeply.

Now, if the national forests are to become the mainstay of our forest policy, then national forests must be established in all the forest regions. The Weeks law program must be absorbed into a program that will cover more completely the Eastern States and be extended into the Lake States, the southern pine States, and the Ozark region. We must, if it accords with the fundamental law of the land to do so, get away from the restriction that now limits Federal purchase of timber lands to the watersheds of navigable streams.

Government forests should be so located in any and all forest regions as to be of maximum influence upon surrounding private timber lands, and they must be large enough to be economical units of administration. They should be built up out of the 326,000,000 acres of cut-over timber lands, and they should be adjusted to and correlated with such forests as the States may elect to establish. The Federal Government in this policy should never allow its plans to conflict with those of the States. The States always should have the right of way.

Opinions may differ as to how far it will be necessary for the Government to go in acquiring lands for forest purposes. That is a question that can not be

and does not need to be answered now. It will depend largely on whether a successful way can be found to induce or require the private owner of timberland to practice forestry. In any case, national forests of appropriate size and strategically located must be established in all forest regions.

Speaking for myself only, but as one who has given much thought to the matter during the past 20 years, I would like to suggest to the committee that the Government should without delay enter upon a program of acquiring at least 1,000,000 acres a year. Even at that rate it will, in my judgment, take many years to work the program out. It does not seem to me to be necessary to pay cash for all this land. A large part of it—possibly as much as 40 per cent—should be acquired in the West, and should be secured in exchange for national forest timber, as proposed in section 9 of the bill now before the committee.

Finally, this is not a matter that can be indefinitely postponed. The cost of postponement climbs so fast that that course repels the thinking mind. We have already 81,000,000 acres of cut-over land now reduced to barrenness that will have to be planted before trees will grow on it again. The cost of planting will be not less than $10 per acre, even in normal times. Every year the barren area increases, due to destructive logging and fires, by not less than two and one-half million acres, thus adding at least $25,000,000 annually to the total cost of the undertaking every year that we put it off.

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